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STANDARDIZING COLLEGES

The movement to standardize colleges is spreading. When the North Central Association of Colleges and Secondary Schools passed a resolution in 1909 calling for the preparation of a list of approved colleges and universities, there were many who thought that the resolution could never be carried out. It was understood at that time that the secondary-school principals were somewhat restless under the inspection of the colleges and thought that there ought to be full reciprocity in the matter of accrediting. But the resolution was carried out, and since 1913 the North Central Association has stood as a shining example of the possibility of inspecting colleges and dealing justly with their right to be named on an approved list.

In 1921, eight years after the North Central Association, the Association of Colleges and Secondary Schools of the Middle States and Maryland followed suit and, on the basis of standards closely resembling those of the North Central Association, prepared a list of approved colleges. In the meantime the Southern Association has such a list; several church boards of education have made

up lists of the institutions under their control; and even associations like the American Association of Colleges, which was originally organized to protect colleges from the imposition of standards by the universities, has adopted a set of standards not unlike those of the North Central Association.

One wonders when the New England colleges will fall in line. Probably not during this generation; but, after all, the generation is changing rapidly and perhaps the information now directly available in the chief executive office of Yale may help.

The type of standardization which is being set up by these associations is one of the most wholesome exhibitions that can be given of the development of a democratic spirit. There is no reason in the world why a first-class institution should be afraid to be recorded in exact terms with respect to its equipment and achievements. Other classes of institutions may object to an equally full study of their characteristics, but the public at large has a right to all of the information that is needed in order to form a just opinion as to the status of any and every public institution. The rights of the public are curtailed by any college which refuses to be inspected.

It is to be hoped that the pressure which has forced the institutions in so many territories to make up approved lists will be felt wherever American education is being carried on, in normal schools and technical schools, as well as in colleges of liberal arts in all parts of the country.

PROGRESS OF SOCIAL STUDIES

Evidences multiply on every hand that the social sciences are gradually coming to be recognized as indispensable elements of high-school curricula. Furthermore, the range of materials included under the social sciences is steadily increasing.

From a pamphlet published by the Ohio Academy of Social Sciences, entitled *Social Science Teaching in City High Schools of Ohio*, the following extracts are quoted:

Table I presents the facts discovered concerning the extent to which the social sciences are taught in the city high schools of Ohio. It also gives some interesting comparative data for the years 1917 and 1920.

TABLE I
EXTENT OF THE TEACHING OF THE SOCIAL SCIENCES IN THE CITY
HIGH SCHOOLS OF OHIO

	PERCENTAGE OF SCHOOLS OFFERING COURSES IN		
	Civics	Economics	Sociology
In 79 out of 103 schools in 1917.....	94	43	7
In 78 out of 101 schools in 1920.....	100	56	30

It will be noticed that while there has been a rapid increase in the schools offering economics, the percentage of increase in the schools offering sociology has been even greater. The very rapid development of the work in sociology is indicated by the increase in the number of classes from eight in 1917 to forty-four in 1920.

As a rule the time ranges from 200 to 300 minutes per week for from 18 to 20 weeks, and courses are for the most part semester courses. Sometimes courses in civics offered with American history extend throughout the year.

The following table will give some idea of the great variety of social science combinations taught by social science teachers, who in many, if not most, cases were also scheduled for non-social science subjects such as science, languages, and mathematics. It is interesting to note that the combinations taught most frequently are civics and history (20), and civics, economics, and history (11). Of the subjects taught alone economics (5) is first, civics (4) second, and sociology (3) third.

SOCIAL SCIENCE COMBINATIONS TAUGHT BY
CITY HIGH SCHOOL SOCIAL SCIENCE
TEACHERS, 1919-20

Social Sciences	Number of Teachers Teaching Combination
Civics, economics, sociology, and history.....	4
Civics, sociology, and history.....	1
Civics, economics, and history.....	11
Civics and history.....	20
Sociology and history.....	1
Economics and history.....	3
Civics, economics, and sociology.....	1
Civics and sociology.....	3
Civics and economics.....	5
Civics.....	4
Economics and sociology.....	2
Economics.....	5
Sociology.....	3
Total.....	63

An announcement sent out by the Vocational Education Association of the Middle West describes, as follows, a monograph which has just been issued by a committee of that Association:

TEACHING SOCIAL SCIENCE IN HIGH SCHOOLS AND INDUSTRIAL CLASSES

A committee of the Vocational Education Association of the Middle West has been at work on the above subject for the past three years. The report of this committee has just been published as Monograph No. 1, Series 1921, the first of the "Monographs on Vocational Education" which this Association will issue at stated intervals.

The report consists of thirty pages and includes a discussion of the aims and methods of such study, especially in continuation classes; thirty suggested lessons in outline form; and a complete bibliography. The need, the method, the subject-matter, and the relation of social science to the whole course of study are clearly and convincingly discussed.

"As economics and sociology advance, they leave in their wake certain definite factual gains, comparable to those discoveries of physical science or of medicine which are now the common property of all the people. And the aim of social science teaching is to render these facts available to the laymen, just as the established facts of medicine are now popularized in sanitation and hygienic campaigns."

The report is a valuable contribution to a subject which has long been neglected in the school curriculum, and one which must be recognized and developed in schools below college grade if proper progress is to be made in the case of present-day social problems.

The committee is composed of Ruth Mary Weeks, chairman, who has written several books on the foregoing topics; John R. Commons, of the University of Wisconsin; and Frank M. Leavitt, Associate Superintendent of Schools, Pittsburgh. The subject has therefore been approached from various aspects, and in addition has had the collaboration of many individuals who have tested the suggested lessons.

Copies of this report may be had from the secretary of the Association, Leonard W. Wahlstrom, 1711 Estes Avenue, Chicago, at 20 cents each.

The principal of the East High School of Aurora, Illinois, K. D. Waldo, has published for use in his school a paper-covered volume of seventy pages under the title *The Government of Aurora*. It begins with a history of the city and contains a full description of the governmental and social agencies which contribute to the life of the municipality. Especially noteworthy are the chapters which explain fully the financial system of the city, giving to the students a clear explanation of the taxing system and of the city's budget.

THREE TYPES OF TEXTBOOK TROUBLES

Textbook troubles have arisen in several leading cities during the past months, according to the statements of the public press. Cincinnati, facing a deficit of \$100,000 in its school budget for the year, cut this down to \$41,000 by increasing the teaching load both in number of pupils and in the number of teaching hours. The city is attempting a still more drastic retrenchment consisting of two major items: increasing the size of all high-school classes to thirty or more pupils, and abandoning at least for the time being the free textbook system for high-school pupils and possibly for elementary-school children. Textbooks for the upper schools cost the city about \$11,000 annually. The proposal is that this sum be saved by charging an annual rental of about \$2 per pupil for books and other equipment. Apparently the superintendent and the board regret the abandonment of the free textbook system which has been in successful operation for fifteen years.

The action reluctantly taken in Cincinnati is but a part of the schools' share of the burden in the universal pressure caused by increased expenses and low income. Of an entirely different order is the situation in Chicago. Here, the school board has been decidedly split over the question of selecting free textbooks, the use of which was authorized by a city-wide referendum last spring. The superintendent, backed by a majority of the board, planned to introduce free books, selected certain texts for a beginning, and let the contracts for 571,000 books to cost \$215,000. Other and larger contracts were to follow, ultimately calling for enormous expenditures to accommodate 400,000 children. And trouble began.

Charges are made that board members were approached by interested parties. One trustee is reported in the *Chicago Daily News* of December 22 in this wise:

Let me tell my experience. A few months ago I received a telephone call to hurry to an office in the city hall. It was the office of a high city official. He said he had a friend of his there he wanted me to meet. When I got to this city hall office the official introduced me to a man who is not an officeholder, but who is generally known to be closely affiliated with leaders in the organization.

This man promptly told me he was interested in a school-book publishing house and that he wanted to see that it got some business out of the free textbooks. I told him that of course his concern might have a chance to get some

business if it bid low enough and furnished good enough books. Then he asked me to keep him posted when the matter came up.

A short time later the head of the school-book concern mentioned called upon me. He told me the man I had met at the city hall official's office was connected with his concern. He reminded me that this man stood high with the administration and said I had better go along with him. But I didn't.

One unsuccessful bidder is said to have warned the mayor that unless the bids were reconsidered the hands of the board would be tied by injunction suits. The attorney for the board rendered a decision to the effect that the purchases made at first were invalid because the books selected had not been properly listed in the state superintendent's office in Springfield. That officer, however, announced that all the books had been duly listed with him. Charges and countercharges were of frequent appearance. The present situation is that by action of the board the city itself will undertake the printing of books for free distribution, in spite of the pitfalls which lie before a school board which attempts to publish its own books. For the most part, such attempts have been miserable failures.

The *School Review* does not pretend to vouch for the accuracy of all details in this account. It merely points out the almost insuperable danger of a free textbook plan in a large city, especially if the schools are still largely the victims of politics. Apparently a fraction of the Chicago board has disregarded the earnest recommendation of Superintendent Mortenson. One thing is certain: a budget for the purchase of books should be made by the school board. At this point their obligations should definitely cease. The superintendent's choice should be final.

Still a third type of trouble which at first looks like a tempest in a teapot has arisen in New York City. Certain officials are alarmed, alleging that of the history textbooks in use some are pro-English and others are socialistic in tendency. One text is under fire for the very moderate assertion that there is no use in attempting to find out which side was right in the Revolutionary War, because the British and the Americans see it differently. Another book is criticized for saying that John Hancock was a smuggler and his father a smuggler before him, mentioning him only with this stigma and then dismissing him. Still another

text is said to be misleading because, in dealing with the Socialist party, it does not speak of the recalcitrant actions of that party during the recent war. In another place, this book, dealing with the capitalistic stage, arouses opposition by saying,

The result is the downfall of business competition and the formation of nation-wide and even world-wide monopolies. Thus most people must work for wages and if monopolies were not controlled by the state the wages of the workmen could be determined by the capitalists. The condition of employees then would be no better than that of slaves.

It does seem at first that items of the order just stated are somewhat too petty to call for the storm of protest which has resulted in the appointment by the mayor of a committee of investigation, and in the appointment by the superintendent of still another committee of twenty-one for a similar purpose. Perhaps the older textbooks which vigorously and unjustly twisted the lion's tail, if still in use, would not have caused a stir.

However, in the New York inquiries there is an important principle involved. Acceptable textbooks dealing with social, economic, or historical facts and principles must certainly be accurate and fair-minded, judicial, and restrained. One pities the makers of such books; how can they know the truth! Perhaps McLaughlin and Van Tyne, in one of the books now under fire in New York, are near the truth when they say that there is no use trying to find out which side was right and which was wrong in a certain historical controversy. The implication of such a statement is: forget the past conflicts in which there was wrong on both sides; face the present, in which we want right on both sides.

In the meantime, we are reminded that the content of class books used in our schools is by all odds the most potent force in our public education. Textbooks ought to be accurate in fact and principle, ought to be supplied in liberal numbers to the pupils, and ought to be selected by educational experts, not by political school boards.

PSYCHOLOGICAL TESTS FOR FRESHMEN

In a letter written to the director of the Commonwealth Fund last summer, Dean Husband, of Dartmouth College, describes so

clearly the experiment which is being carried on in that institution that the editors of the *School Review* have secured permission to publish the letter in full. It is as follows:

President Hopkins has forwarded to me your letter of July 8, in which you request information regarding the use of psychological tests at Dartmouth College, together with efforts to correlate the results of the tests with other known facts concerning individual students.

The vote of the Trustees creating my office reads in part that the work should "be developed with the idea of enabling the men of the college to make the right contacts at the close of their college course, and helping them to begin advantageously and promptly what is to be their life-career."

The functions uppermost in the minds of the Trustees in passing this vote were that students should be assisted in choosing an appropriate life-career, should be advised concerning the preparation for such career, and at the end of their course should be helped in establishing right contacts. I interpreted my primary duty to the College to be that of improving scholarship by giving unified direction to the choice of electives and showing to students the place of one subject and another in the general scheme of adequate preparation for a chosen life-work and for useful and satisfying living.

Hence it became obvious that it would be necessary to maintain a central file composed of a transcription of all essential records of each student as collected at the various offices of the College. The following is something of a list of the facts we attempt to gather and file: Social and financial status, education of parents, preparatory course, physical development, psychological test at entrance, scholastic standing, intellectual and physical interests, relation to other students, personal traits, earnings during college course.

The Department of Psychology gives a test, composed of nine or ten different elements, to all Freshmen. The results are placed in my hands for discussion in detail with each man, in an effort to ascertain by conference (taking the tests as a text) the strength and weakness of the individual. This leads to advice regarding the nature of the specialization in which a student should engage, and to the recommendation of methods of correcting weaknesses or deficiencies. These conferences seem to show that the tests present a remarkably accurate picture.

The Department of Psychology has for the past two years worked out a correlation between the results of the tests and the students' scholastic standing. Professor Moore published such a study in *School and Society* for April 2, 1921, while Professor Stone has been collecting data on the relation of the different sections of the test to attainment in the various subjects studied. Their object is to discover the nature of a test which will make success or failure in a given subject most easily predictable.

At the end of each of the last two years we have had instructors estimate their students on the qualities of intelligence, forcefulness, reliability, and

personality. The scheme has been found very successful, as instructors have taken great care in the effort to estimate their students accurately. I discuss these ratings with each student, and have been much impressed with the serious attempts made by students to improve their ratings for another year. These also correlate fairly well with parallel sections (i.e., intelligence and forcefulness) in the psychological tests.

Beginning with the next academic year we expect to make a very marked extension in our system of advice relating to physical exercises, recreation, and diet. So far we have made no attempt to correlate physical condition with psychological tests or scholastic attainment. We hope, however, to be able in the future to demonstrate in individual cases a direct relation between scholarship and improved health. We shall need about four years of experience before we can produce statistics of any value.

Also beginning with next September there will be added to my office a man whose chief work has been along the lines of mental hygiene and adolescence. So far it is merely a hope that this departure may lead to substantial advance in our knowledge of the causes of irregularity and lack of success (or of partial success) in scholarship on the part of many students. Ultimately we hope to be able to forestall failure in some instances and to increase dependability by guarding against tendencies.

WORKINGMEN'S COLLEGES

The following item is borrowed from the house organ of Ginn and Company:

In spite of checks and difficulties, the higher education of 'workingmen' is spreading rapidly throughout the world. In the United States the movement is making great strides. Within the last three years workingmen's colleges have been started in ten industrial centers—Boston, Philadelphia, Baltimore, Washington, Rochester, Pittsburgh, Cleveland, Minneapolis, St. Paul, and Seattle. Several new colleges are now being inaugurated in additional cities. The total registration of students is already in the vicinity of ten thousand and is still growing.

The eighteenth annual report of the British Workers' Educational Association shows that branches of that association number 316, covering the whole of the United Kingdom. Thirteen district organizations link up the branches, while the total number of students attending classes during the session has increased from 12,439 in 1919-1920 to 19,294 in 1920-1921.

Most of these newly formed schools in England and America profess the same educational aims. The need that is recognized is for advanced education for mature workers, such as is "essential for their complete development as individuals and as citizens." In general, the subjects most popular are the same as those in other educational institutions. There is a notable interest in written English, public speaking, law, economics, and literature. So far every

expressed intention of the movement has been toward stimulating independent study. There has been no apparent bias toward any school of thought or in favor of any dogma.

The chief difficulty in this country, as in England, is in securing good teachers. The Workers' Educational Association of Great Britain has solved this problem by co-operation with the universities, and by giving such teachers, once chosen, a free hand. In this country, up to the present at least, the relation between the workers' colleges and the universities has received little consideration.

Professor Feis, of the University of Kansas, in discussing this problem, concludes: "It is not too early even now to consider these questions earnestly and to try to plan for the future. The co-operation which is so much needed to carry the movement to its proper ends should be sought at once. Those who stand back from workers' education now must not be surprised if in the future they do not find it progressing to their satisfaction. This is the time when the movement needs the co-operation of all those who put their hope in democracy."

ADMINISTRATIVE ORGANIZATION OF HIGH SCHOOLS IN CONNECTICUT

In a recent bulletin published by the State Department of Education of Connecticut, Mr. J. B. Davis, Supervisor of Secondary Schools, devotes several pages to a general statement of conditions in the eighty-five approved high schools under his charge.

Several paragraphs in his report point out general matters or typical needs in such clear terms that they may properly be quoted:

It is very evident from the returns that very few principals have given serious thought to the problem of the most efficient use of one's time. In the larger schools the principal is usually free from teaching duties and can plan his time as he sees fit. The temptation is to stay in the office, to spend too much time upon unnecessary detail, and to leave more important functions to assistants or to go by default.

It is practically impossible to adopt a time schedule and to hold to it for any length of time. However, if the various functions are not to be neglected, it is well for the principal to outline at the beginning of the day or the week certain duties which must be attended to within the time set.

Outside of regular teaching, the first duty of the principal is the supervision of teaching. Too little visiting of classes is done by most principals. Too little assistance is given to the beginning teachers. Almost no time is given to the improvement of teachers in service. The principal is largely responsible for the standard of teaching done in his school. Therefore, he must plan his work and time.

There is no evidence of uniformity of practice in requiring teachers to file reports of the work covered in each subject from time to time. Sixteen high schools require no such report. Three schools have a "daily plan" scheme of reporting. Sixteen schools have monthly reports; twenty-two semi-annual or term reports, and eighteen have the annual report. A few require weekly or bi-monthly reports. If there is any effort upon the part of the principal to supervise the teaching, it would seem that some plan for knowing how the work is progressing is a necessity except in the very small school in which the principal may be in daily touch with all of the work.

WHY TEACHERS PROMOTE STUDENTS

The following letter came to the editors of the *School Review* from Benjamin C. Gruenberg, assistant director of educational work of the Public Health Service of the United States:

The article by Lindsay and Gamsby, "Where Test Scores and Teachers' Marks Disagree" (*School Review*, November, 1921) brings out a very important practical problem in school administration that deserves more extensive as well as more intensive study.

In 1919 I administered the Otis Group Test to the graduating class of a commercial high school for girls and undertook to make a special study of the extremes or the uncorrelated individuals. The first case I investigated was that of a girl at the lower end of the scale who showed, according to the Otis test, a mental age of eleven years. Her school record showed no high marks in any subject and an almost uniform record of "passed" for three years. On interviewing her teachers I found them in substantial agreement to the effect that while she was not a good scholar and was perhaps not quite up to grade in the various subjects, she did try very hard, she was very willing, she was always polite and good natured, and—being a colored girl—she had from term to term been given "the benefit of the doubt." In response to the specific question whether, for example, this girl was competent to do the stenographic work or the bookkeeping work usually required by an employer of a beginner having a high-school diploma in commercial training, the teachers were very doubtful.

I brought this case to the attention of the principal, whose first reaction was to see in it a confirmation of his theory that "personality" was a much more important factor in business "success" than scholarship or other ability. He had, indeed, during the preceding year carried on a vigorous campaign for the cultivation of "personality"—not, to be sure, to the prejudice of scholarship but as supplementary to it.

When the question is raised whether a pupil who is promoted term after term on the strength of doubts concerning his ability to do the required work is equipped to do work expected of a high-school graduate, the answer depends on what the school really expects of its graduates. If the primary

function of the high-school diploma is to assist in "selling" the pupil to the prospective employer, then the diploma certifies to the pupil's ability to sell himself to the teachers. If, on the contrary, the diploma certifies capacity to produce, the teachers who allow a pupil to sell himself on the strength of "personality" simply reveal themselves as incompetent to inspect their own ostensible product. There is no question that the girl in this particular case has a pleasing personality which is of value in a variety of situations; neither is there any doubt of her total inability to perform the services ordinarily required of a stenographer or other office worker of the grade represented by a high-school diploma.

There is no doubt that the student is entitled to every aid that a school can give in the development of native talents, modes of response, and other peculiarities that are individually satisfying and socially desirable. But neither is there any doubt, at least in my mind, that it is altogether unfair to the student to get him into the habit of thinking that he is doing satisfactory or passable work when in reality he has no capacity for the type of work in question. Sooner or later a student in this situation is bound to fail; in commercial terminology we may say that the school has helped him in the art of selling; he will fall down when it comes to delivering the goods.

One of the practical values in group tests at the beginning of the high-school career lies precisely in helping teachers to discover the students who are handicapped by traits of personality or emotional habits so that they are prevented from getting the optimum returns for their effort and, on the other hand, to discover those other pupils who receive credit and eventual disaster because their lack of capacity for the type of work required is masked by appearance or conventionalized response that serves temporarily as a substitute for effective, productive work.

News Items from the School of Education of the University of Chicago

THE UNIVERSITY OF CHICAGO DINNER

The University of Chicago Dinner, which is held annually during the week of the meeting of the Department of Superintendence, will be held Wednesday evening, March 1, at the Hamilton Club, 20 South Dearborn Street, Chicago, Illinois. Alumni, former students, and friends of the University are most cordially invited. Guests will assemble at six o'clock in the Lounge Room on the third floor. Dinner will be served promptly at six-thirty. The cost is \$2.00 per plate.

THE VALUE OF DIAGRAMMATIC DRAWINGS IN LEARNING SCIENTIFIC FACTS

Through the work of Ayres and others, teachers are coming to see the importance of the use of simple diagrammatic drawings in the teaching of science. As a step toward finding out the extent to which diagrams made by the pupils assist in arousing the mental processes involved in analysis, abstraction, and judgment, O. Flora Bryson, A.M., East Radford, Virginia, recently made an investigation of the advantages derived from the use of such drawings.

The subjects with whom the study was made were eighty-five college students of Radford State Normal School and sixty second-year high-school pupils of Radford. Each class was divided into two sections on the basis of the school grades for the previous year. Two topics were used from plant life and two from animal life. Topics were chosen in which were involved: (a) anatomy, which could be emphasized easily by diagrams and (b) scientific principles, such as those relating to fertilization and germination, which could not be diagrammed easily. Both sections were taught by lecture demonstration followed by a review in one section and by the

drawing of diagrams in the other of features pointed out by the teacher. The students were required to label the diagrams properly. The same tests were given each section immediately after the teaching of the topics and again after three months in order to ascertain the amount retained. All points made by the pupils in the tests were listed according to (a) structure, (b) interpretation of structure or function, and (c) points obtained solely from the lecture.

The following conclusions were drawn: (1) There are many points in science that are learned as readily by means of lectures as by the use of diagrams. (2) The greater number of points involving structure are rendered clearer by means of analytical diagrams. (3) A large number of points relating to functions of parts are made clearer by means of the student's diagrams of the structure involved. (4) The teacher's diagrams on the board illustrating generalizations of functions, not seen by the pupil in the object, are reinforced by the student's diagrams of the organs involved. (5) Analytical drawings increase the retention and recall of information which has been acquired.

OTHER STUDIES

It will not be possible to report the following studies in detail. The names and addresses of those making the studies are included here for the information of anyone interested in similar problems.

1. "The Effect of Lesson Preparation on Accomplishment in Mathematics Classes." Nancy Trompen, A.M., 24 West 109th Street, Chicago, Illinois.
2. "The Relation Between Successful Progress in Mathematics and Ability to Read and Understand." J. M. Hackler, A.M., Tahlequah, Oklahoma.
3. "A Comparative Study of Teachers in Rural Schools." Gertrude Hosey, A.M., Warrensburg, Missouri.

THE SELECTIVE PRINCIPLE IN AMERICAN SECONDARY EDUCATION. II¹

GEORGE S. COUNTS
Yale University

In an article published in November an analysis was made of the social composition of the entire high-school populations of Bridgeport, Mount Vernon, St. Louis, and Seattle. The occupation of the father or guardian was accepted as the basis for this analysis. A comparison of the high-school population with the adult population of these four cities showed very clearly that the selective principle has not been abandoned in American public secondary education. In spite of its extraordinary growth during the last half-century, the high school is still patronized very largely by the more fortunate social and economic classes, and the lower grades of labor have as yet hardly begun to think in terms of a secondary education for their children.

In this article the analysis is to be carried further by making a study of certain groups of children of high-school age not in high school and by observing the representation of the various occupational groups in the different years of the school. The evidence here presented will be found to corroborate the conclusions drawn from the more general study referred to in the preceding paragraph.

PARENTAL OCCUPATION AND CHILDREN OF HIGH-SCHOOL AGE NOT IN HIGH SCHOOL

Information regarding parental occupation was secured from four groups of children of high-school age not in high school. Of these, one group was in Seattle and three were in Bridgeport. In the former city this information was obtained from 514 children at

¹ The author will publish, as one of the "Supplementary Educational Monographs," a body of material on the population of the high school which amplifies the findings presented in the two articles on "The Selective Principle in American Secondary Education." Announcement will be made as soon as this monograph is ready for distribution.

work in the commercial and industrial plants in December of 1919. They were all in the age period from fourteen to seventeen years inclusive. The investigation in Bridgeport included 243 students attending the evening high school, 198 boys and girls in the state trade school, and 579 children in the compulsory continuation classes of the evening school.

TABLE II

PERCENTAGE DISTRIBUTION, ON THE BASIS OF THE OCCUPATIONS OF THE FATHERS OR GUARDIANS, OF 514 CHILDREN OF HIGH-SCHOOL AGE AT WORK IN SEATTLE, 1919-20, AND 6,138 CHILDREN IN HIGH SCHOOL

	Children of High-School Age at Work	Children in High School
Proprietors.....	2.5	17.4
Professional service.....	4.1	11.4
Managerial service.....	8.2	17.1
Commercial service.....	2.7	8.7
Clerical service.....	3.5	4.6
Agricultural service.....	3.9	4.8
Artisan-proprietors.....	0.2	2.6
Building trades.....	24.3	11.8
Machine trades.....	11.1	7.4
Printing trades.....	0.2	1.1
Miscellaneous trades.....	5.8	2.0
Transportation service.....	9.5	5.6
Public service.....	2.5	1.5
Personal service.....	1.8	1.6
Miners, lumber-workers, and fishermen....	3.7	1.0
Common labor.....	16.0	1.4
Total.....	100.0	100.0

Data concerning the 514 children of high-school age at work in Seattle were secured through personal interviews with the children by field-workers. The two sexes were about equally represented, there being 249 girls and 265 boys. Obviously this investigation did not cover all of the children of high-school age at work or not in high school, but the number is large enough to be representative.

In Table II are presented the facts regarding the parental occupation for this group of children, and for comparative purposes corresponding percentages are given for the high-school population.

A glance is sufficient to show the profound differences between the two groups. The proprietors, professional service, managerial service, commercial service, clerical service, agricultural service, artisan-proprietors, and the printing trades have better proportionate representation in the high school. This is especially pronounced for the first four groups. The favorable balance for the farmers and clerical workers is not so marked. The printing trades have the best record among the labor groups, but the number of cases is so small that too rigid conclusions should not be drawn. The artisan-proprietors also make a very good showing, but the returns on this group are somewhat subject to error because of insufficient data from the children at work. The comparison presented in this table for this particular group certainly does not represent the actual situation. The remaining occupational divisions have better representation among the children at work than among those attending high school. Without exception they are the manual occupations. Over 75 per cent of the children at work come from the laboring classes.

In Bridgeport, as already stated, three groups of children not in the regular high school were studied. The evening high school requires no special description. The young people studied were pursuing curricula similar to those offered in the day high school and were all twenty-one years of age or under. The trade school is supported and administered by the state of Connecticut under the provisions of the Smith-Hughes Act. Its purpose is therefore intensely practical, and it points very definitely toward industry. It aims to turn out efficient workmen in some fifteen trades by providing a 4,800-hour course in each trade, covering a period of two years. All who enter this school have renounced all intention of pursuing a higher education and very few of them have ever attended a high school. The compulsory continuation classes constitute a part of the evening school. The children found here are an interesting group. Many of the "problems" of elementary education are enrolled in these classes. They are here under the provisions of a state law which compels children from fourteen to sixteen years of age, who have left school without having completed the work of the elementary school, to attend evening school until

they either attain their sixteenth birthday or graduate from the eighth grade. There are consequently gathered into these classes great numbers of children who are unfortunate either by nature or by nurture. Practically none of them will ever attend the high school. They are a sampling of that great group of children still to be found in our cities and towns for whom the high school

TABLE III

PERCENTAGE DISTRIBUTION, ON THE BASIS OF THE OCCUPATIONS OF THE FATHERS OR GUARDIANS, OF 243 CHILDREN IN THE EVENING HIGH SCHOOL, 198 IN THE TRADE SCHOOL, 579 IN THE COMPULSORY CONTINUATION CLASSES, AND 2,257 IN THE PUBLIC HIGH SCHOOL, BRIDGEPORT, 1920-21

	Evening High School	State Trade School	Compulsory Continuation Classes	Public High School
Proprietors.....	6.6	6.1	1.4	20.0
Professional service.....	2.5	1.0	0.7	6.1
Managerial service.....	9.9	7.6	5.3	17.1
Commercial service.....	3.3	1.5	1.2	7.2
Clerical service.....	1.2	1.5	1.7	4.3
Agricultural service.....	5.8	4.5	0.9	2.2
Artisan-proprietors.....	5.4	4.5	4.3	4.9
Building trades.....	10.7	9.6	8.6	5.1
Machine trades.....	20.6	25.8	22.0	14.1
Printing trades.....	0.4	1.0	0.3	0.3
Miscellaneous trades.....	15.2	10.7	16.3	6.2
Transportation service.....	2.5	3.0	4.0	3.4
Public service.....	1.2	0.5	0.2	2.5
Personal service.....	1.2	4.0	2.5	2.3
Common labor.....	11.9	17.7	26.6	1.7
Unknown.....	1.6	1.0	4.0	2.6
Total.....	100.0	100.0	100.0	100.0

simply does not exist. And it is for this reason particularly that they are introduced into this study. In no one of these three groups do we have data for all the children in attendance, but the number is large enough in each case to insure reliable results.

The occupations of the fathers or guardians of the children in these three groups are given in percentages in Table III. The facts for the high-school population of Bridgeport are also given for purposes of comparison. An examination of the table shows a

condition very similar to that observed in Seattle. The high-school population exhibits a social composition very different from that of each of these three groups of children not in high school. Let us note briefly the character of each group.

In the evening high school the four leading groups are labor groups with the machine trades in first place, followed by the miscellaneous trades, common labor, and the building trades. Shifting our attention to the facts for the high-school population, it will be observed that the proprietors and managerial occupations are in first and second place, whereas in the evening high school they hold sixth and fifth place respectively. This excellent representation of certain of the labor groups shows the presence of many young people among them who are ambitious for larger educational opportunities.

In the trade school the same four great labor groups are in the lead. The order, however, is slightly altered, common labor having forged ahead of the miscellaneous trades to second place. On the whole, the labor groups are somewhat better represented here than in the evening high school, while it naturally follows that the reverse is true for the non-labor groups. And a comparison with the regular day high school shows two markedly different groups of children from the standpoint of the population sources from which they come. As a matter of fact, 54.7 per cent of the students in the high school come from the five non-labor groups (proprietors, and professional, managerial, commercial, and clerical occupations), while but 17.7 per cent of the trade-school students come from these same sources.

In the compulsory continuation classes the representation of the five non-labor groups has shrunk to 10.3 per cent, and over half of these are found in the managerial service alone, most of whom are labor foremen. In this group particularly the lowest grades of labor are heavily represented. The fathers of more than one-fourth (26.6 per cent) of these 579 children are common laborers, whereas but 1.7 per cent of the children in the high school come from this occupational group.

What amounts to a summary of the situation found in Bridgeport is given in Figure 2. Here a comparison is drawn between

the high-school population and these three groups of non-high-school children combined. The bars represent for each occupational group the number of children in the latter to every hundred in the former. The tremendous difference between common labor and all the other groups is striking. As a matter of fact, all the labor

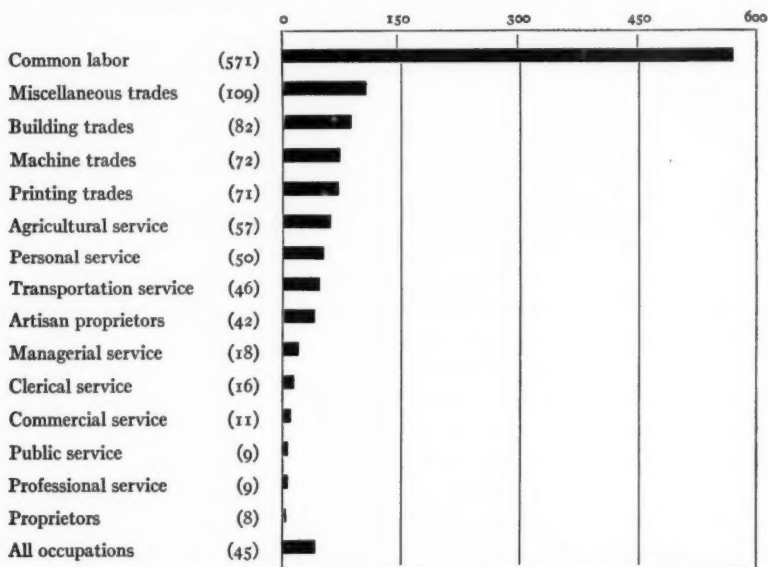


FIG. 2.—Number of children from each occupational group in the evening high school, trade school, and compulsory continuation classes combined for every one hundred children from the same group attending the day high school. Data for 1,020 children from the three groups combined and 2,257 children from the day high school. Bridgeport, 1920-21.

groups except the public-service group occupy relatively unfavorable positions. Too much weight should not be attached to this exception because of the small number of cases involved.

In concluding this part of the study the reader's attention should be directed again to the similarity of the results obtained in the two cities. In both Seattle and Bridgeport the high school is seen to be decidedly selective. Its population is recruited from the higher social levels in contrast with the groups of children of high-

school age outside the regular high school. In so far as the opportunities of secondary education are concerned, the several occupational groups arrange themselves apparently in a graded series with professional service and the proprietors at one end and common labor at the other. These conclusions are in complete accord with those drawn from the comparison of the high-school population and the occupational census which were presented in the previous article.

PARENTAL OCCUPATION AND PROGRESS THROUGH THE SCHOOL

Up to this point the analysis has been based altogether on the total high-school enrolment. Let us now observe the changing character of that population as we pass from the earlier to the later years. The resulting comparisons are as illuminating as any that have gone before. Data are available for the students in each of the four years of the high schools in the four cities and for the pupils of the sixth grade in Mount Vernon.

All are familiar with the fact that the number of students in the Senior year is much smaller than in the Freshman year. In fact, for the nation as a whole there are almost three times as many students in the latter as in the former year of the high school. Obviously, this difference is due to two causes, namely, elimination and the increasing Freshman class, the latter resulting from the normal population increase and the growing interest in secondary education on the part of children and parents. Presumably, this elimination is selective, and many studies have been made of this process of elimination and the character of the pupils eliminated. It is our purpose here to contrast the first and last years with respect to the social composition of the student population.

In Table IV this comparison is made with the combined data for the four cities. The percentage of students coming from each occupational group is given for each of the two years. It is plain that the Senior class in these high schools does not differ from the Freshman merely in the age of its students and their advancement in the course. The proportions coming from the different elements in the population are noticeably different. The children of the laboring classes constitute in every instance a smaller percentage

of the total enrolment of the last than of the first year of the high school. On the other hand, a larger percentage of the Seniors than of the Freshmen are children of proprietors, professionals, managers, and commercial workers. Two groups occupy an intermediate position, making equal proportionate contributions to the two classes, namely, the clerical and agricultural workers.

TABLE IV
PERCENTAGE OF STUDENTS FROM EACH OCCUPATIONAL GROUP
IN EACH OF TWO YEARS IN THE HIGH SCHOOLS OF BRIDGE-
PORT, MOUNT VERNON, ST. LOUIS, AND SEATTLE. DATA
FOR 6,782 FRESHMEN AND 2,522 SENIORS

	Freshman Year	Senior Year
Proprietors.....	17.7	22.9
Professional service.....	7.7	12.5
Managerial service.....	15.4	19.1
Commercial service.....	8.6	11.1
Clerical service.....	5.9	5.9
Agricultural service.....	2.3	2.3
Artisan-proprietors.....	4.4	3.5
Building trades.....	8.8	5.3
Machine trades.....	8.3	4.6
Printing trades.....	1.0	0.8
Miscellaneous trades.....	4.8	2.3
Transportation service.....	6.2	3.6
Public service.....	1.7	1.1
Personal service.....	1.4	0.9
Miners, lumber-workers, and fishermen....	0.5	0.3
Common labor.....	1.8	0.6
Unknown.....	3.5	3.2
Total.....	100.0	100.0

These same facts under a slight adaptation are presented graphically in Figure 3. Here is shown for each group the number in the Senior year to every one hundred in the Freshman year. An inspection of the figure shows that this ratio exhibits a very wide range among the various occupations. It may be stated as a general proposition that those occupations which have relatively poor representation at the beginning of the high-school course are the ones with a small proportion in the Senior year. At the two extremes are professional service and common labor. For the former

there are 60.2 students in the Senior year to every one hundred in the Freshman year; whereas for the latter this ratio is but 12.4. The facts for the Sophomore and Junior years are not given here since, as might be assumed, they show a condition intermediate between the two extremes. It seems that as we pass from year to year in

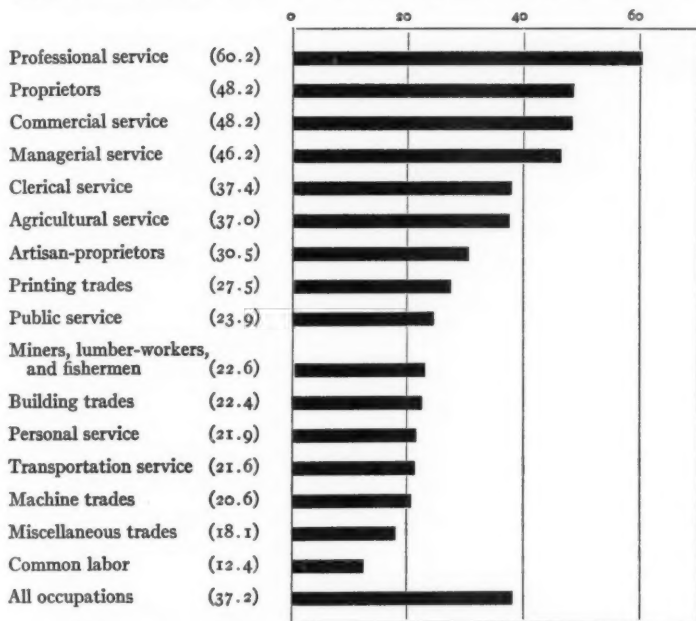


FIG. 3.—Number of students in each occupational group in the Senior year for every one hundred in the Freshman year of the high school. Data for Bridgeport, Mount Vernon, St. Louis, and Seattle.

the high school, the children from the laboring classes constitute a less and less important element in the student population.

By the time the first year of the high school is reached the student population in our schools is already greatly reduced and presumably considerably selected. It is fortunate, therefore, that facts regarding the social composition of the entire sixth grade in Mount Vernon were secured. Of course, there are many children who do not even reach this point in our educational system. This

group of children may consequently be assumed to be somewhat different socially from the children in the first grade, or from the children constituting a cross-section of the entire population at any particular age. The group, nevertheless, provides us with significant data for comparative purposes.

The percentage of children from each of the occupational groups for both the sixth grade and the Senior year of the high school is

TABLE V
PERCENTAGE OF CHILDREN FROM EACH OCCUPATIONAL GROUP IN
EACH OF TWO SCHOOL GRADES. DATA FOR 739 CHILDREN
IN THE SIXTH GRADE AND 136 IN THE SENIOR YEAR OF THE
HIGH SCHOOL, MOUNT VERNON, MAY, 1921

	Sixth Grade	Senior Year of High School
Proprietors.....	13.1	29.4
Professional service.....	6.8	16.9
Managerial service.....	10.0	20.6
Commercial service.....	6.0	15.4
Clerical service.....	4.3	5.2
Agricultural service.....	2.3	0.0
Artisan-proprietors.....	9.1	5.2
Building trades.....	16.5	0.7
Machine trades.....	4.7	0.7
Printing trades.....	0.4	0.0
Miscellaneous trades.....	5.2	2.2
Transportation service.....	4.2	0.7
Public service.....	1.5	0.0
Personal service.....	2.4	0.0
Miners, lumber-workers, and fishermen....	0.4	0.0
Common labor.....	10.8	0.0
Unknown.....	2.3	3.0
Total.....	100.0	100.0

given in Table V. The difference between the first and last high-school years already noted is seen to be greatly accentuated. It is probable that the difference would be somewhat greater in a city with a larger laboring population. Even here, the majority of the children in the sixth grade come from the homes of laborers. This is certainly not true of the students in the Senior year of the high school. These two cross-sections of the school population give us two different sociological pictures. They might almost be conceived as representative of two different social orders.

This contrast is so striking that it seems advisable to give it graphical representation. This is done in Figure 4 by taking four occupational groups showing different tendencies and plotting a curve for each, picturing its percentage representation in the school population of each grade from the sixth to the twelfth. Since we have no data for the seventh and eighth grades, the position of the curve in these grades for each group is purely hypothetical. Based on actual facts, it would probably not follow exactly the course given it here, but its general direction would be the same. The

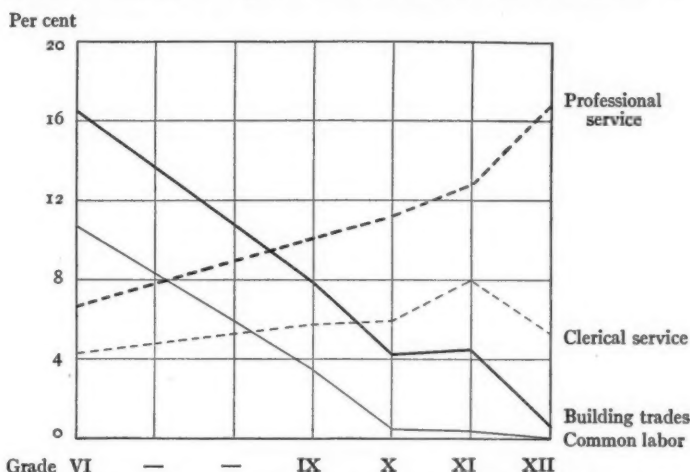


FIG. 4.—Percentage of children in each grade from the sixth to the twelfth whose fathers are engaged in each of four groups of occupations, Mount Vernon, May, 1921. No data for seventh and eighth grades.

figure shows in an impressive way the diverse reactions of these four groups to educational opportunity. Each of the occupational divisions was chosen for a reason—common labor and professional service, because they represent the two extremes; clerical service, because it represents an intermediate tendency; and the building trades, because they are the largest labor as well as the largest occupational group in the sixth grade. The proportion of children in each grade from the building trades and common labor diminishes very rapidly as we pass from one year to the next. The latter has practically disappeared in the Sophomore year, and the former is

barely able to keep a slight representation until the end of the high school. Professional service, on the other hand, furnishes a constantly increasing percentage of the school population as progress is made through the schools. Clerical service improves its position slightly, but it does little more than hold its own. The other non-labor groups show tendencies similar to those of professional service, and the remaining labor groups behave much as the building trades.

Since the organization of most of the work in most of our high schools assumes four years of attendance, the number and character of the student population in the Senior year might be expected to constitute one of the most satisfactory measures of the extension of secondary educational opportunity. The Senior class should tell much about the success of the high school in reaching the various elements in the population. It is for this group especially that the high school is maintained.

In the previous article the total high-school population was analyzed in the light of the social composition of that adult population from which children of high-school age come. This same thing is done for the students of the Senior year in Figure 5. Here is shown for each occupational group the number of students in the Senior year of the high school in the four cities for every one thousand men over forty-five years of age engaged in that occupation in these same cities, according to the thirteenth census. The reasons for choosing the number of males over forty-five as the basis for comparison have already been given. As might be expected from the data presented thus far, the differences between the laboring and the non-laboring groups are greater here than for the total high-school population. It appears that the chances that the child of a father engaged in one of the professional pursuits will reach the Senior year of the high school are sixty-nine times as great as those of the child whose father is a common laborer. These two occupational classes represent the extremes. The others fall in between in a gradual series with the laboring groups at the lower end of the distribution.

A more concrete picture of the social composition of the student population in the Senior year is presented in Table VI, in which are given the probable occupations of the fathers or guardians of one

hundred high-school Seniors taken at random from the high-school population of the four cities. If all the students in the Senior year of these high schools should be transported to the same place, and if the reader, happening to arrive at that place, should make inquiry of the first one hundred young people encountered, regarding the parental occupation, he would get a distribution not very different

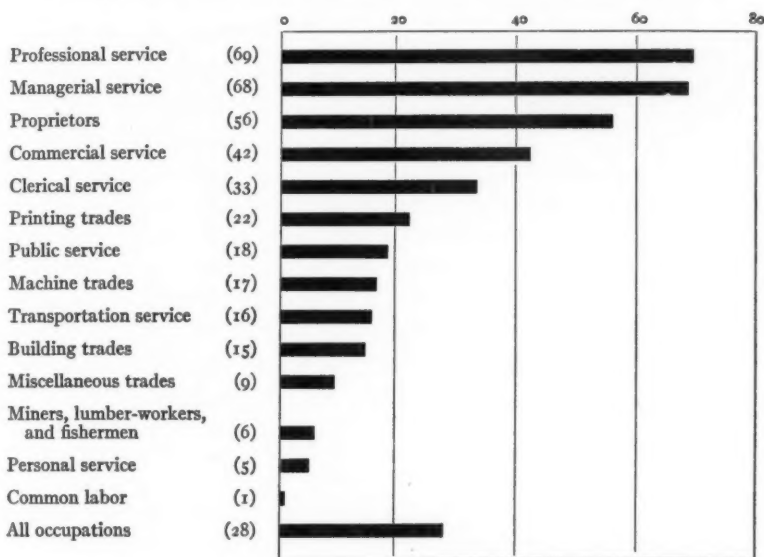


FIG. 5.—Number of children in the Senior year of the high school in four cities (Bridgeport, Mount Vernon, St. Louis, and Seattle) from each occupational group for every one thousand males over forty-five years of age engaged in that occupation in the four cities, according to the federal census for 1910. Data for 2,382 high-school Seniors.

from that presented in this table. The writer is of the opinion further that a similar sampling of the high-school Seniors in four other representative American cities would yield a corresponding result, because of the fundamental similarity of populations and conditions from city to city. To be sure, the exact occupations here given would not all appear, although a surprisingly large number of them would, but the general impression conveyed would be about the same. Thus, instead of a hotel-keeper there might be

TABLE VI
PROBABLE OCCUPATIONS OF THE FATHERS OR GUARDIANS OF ONE HUNDRED HIGH-SCHOOL SENIORS TAKEN AT RANDOM FROM THE HIGH-SCHOOL POPULATIONS OF BRIDGEPORT, MOUNT VERNON, ST. LOUIS, AND SEATTLE

Banker	Cigar merchant	Clothier	Clothier	Druggist	Druggist	Dry goods merchant	Fruit merchant	Furniture merchant	Grain broker
Grocer	Grocer	Grocer	Grocer	Hotel keeper	Hotel keeper	Manufacturer	Manufacturer	Manufacturer	Publisher
Restaurant keeper	Shoe merchant	Undertaker	Wholesale merchant	Architect	Architect	Chemist	Civil engineer	Clergyman	Dentist
Editor	Lawyer	Musician	Pharmacist	Physician	Physician	Teacher	Building contractor	Building contractor	Building contractor
Factory foreman	Factory foreman	Factory foreman	Factory superintendent	Factory superintendent	Insurance official	Labor union official	Lumber inspector	Manager of express company	Manager of grocery store
Manager of theater	Police captain	Promoter	Railroad agent	Sales manager	Supt. of postoffice	Yard foreman	Buyer	Commercial traveler	Commercial traveler
Insurance agent	Insurance agent	Real estate agent	Real estate agent	Real estate agent	Salesman in store	Salesman in store	Salesman in store	Salesman in store	Accountant
Bookkeeper	Cashier	Postal clerk	Railroad clerk	Receiving clerk	Farmer	Gardener	Baker (proprietor)	Barber (proprietor)	Cobbler (proprietor)
Tailor (proprietor)	Carpenter	Electrician	Mason	Painter	Plumber	Auto mechanic	Machinist	Machinist	Molder
Stationary engineer	Compositor	Baker	Tailor	Chauffeur	Driver	Locomotive engineer	Street-car conductor	Policeman	Janitor

an additional grocer; among the professional people there might be several physicians and no civil engineer or architect; and in the place of the painter there might appear a sheet-metal-worker. In constructing this table individual occupations were necessarily selected somewhat arbitrarily in many instances since it was necessary to choose from several occupations, no one of which occurred as frequently as once among every one hundred high-school Seniors. For example, the occupation of railroad conductor, or that of street-car motorman, might have been selected instead of that of locomotive engineer. The merest glance through the table will show many more cases where the same method was necessarily followed and where the same criticism is pertinent. The larger occupational divisions, however, would probably appear in any large and representative body of high-school Seniors just about as they do here. Certainly nothing could show more plainly than this table that the students in the Senior year of the public high school are a highly selected lot.

In closing this discussion concerning the relation of parental occupation to progress through the school certain general statements should be made. Not only do the various occupational classes exhibit different degrees of representation in the high school at the beginning of the course, but those very groups that are under-represented in the Freshman year have the smallest ratio of Seniors to Freshmen. In fact, the representation of an occupation in the first year of the high school is at the same time a fairly accurate measure of its tendency to persist through the fourth year. Consequently, the differences among the groups become more and more pronounced as we pass through the school. The school population gradually becomes more and more homogeneous as the source from which it is drawn becomes more narrow, until, by the time the Senior year of the high school is reached, the student body exhibits a distinctly class character. Here the representatives of the laboring classes are few indeed in proportion to their number in the general population, and the lower grades of labor have practically disappeared. This is brought out in striking fashion by the data from Mount Vernon in which the sixth grade is contrasted with the last year of the high school.

CURRENT PRACTICE IN THE ORGANIZATION AND ADMINISTRATION OF JUNIOR HIGH SCHOOLS

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During the last decade junior high schools have multiplied throughout the United States in a phenomenal manner. Recently the writer co-operated in making a study of forty junior high schools in Kansas and of an almost equal number in Indiana. The median year for the establishment of the schools studied in Kansas was 1917; and for Indiana, 1916. The last decade has been the period during which the great majority of junior high schools have been established throughout the country as a whole. So-called junior high schools have been established in towns varying in size from several hundred to fifty thousand or more in population.

Many wholesome tendencies are represented in this attempt at reorganization of secondary education. However, there are certain cautions necessary lest the movement become a mere mushroom affair. Mere iconoclasm is of little consequence. But constructive criticism is essential in the midst of this transitional stage in secondary education.

Claims, functions, and standards relating to junior high schools have been set up from time to time by educators and published by educational associations. In some instances these purposes have been realized in practice. More frequently, the reorganization of secondary schools under the appellation junior high school has been more or less camouflage, if judged in terms of the claims made. This does not mean that we are to give up in our attempt at wholesome reorganization, but it does mean that we need constantly to make genuine, scientific analyses of our objectives and practices.

The assumptions made in this discussion are based upon concrete facts embodied in a dozen or more summary tables resulting from the two studies mentioned. It is impossible in a brief account

to give more than a few representative tables based upon these studies. The tendencies in the way of external organization and the appellations used in the schools considered are shown in Tables I and II. The other material in these studies was collected and tabulated in like fashion.

TABLE I

THE FORM OF ORGANIZATION AND THE APPELLATIONS USED IN FORTY
NON-EIGHT-FOUR SCHOOLS IN KANSAS

Form of Organization	Number of Schools	Appellation	Number of Schools
6-3-3.....	12	Junior high.....	27
6-2-4.....	24	Intermediate.....	2
6-6.....	2	Departmental.....	10
7-1-4.....	1	Junior school.....	1
6-2½-3½.....	1		
Total.....	40	Total.....	40

TABLE II

THE FORM OF ORGANIZATION AND THE APPELLATIONS USED IN THIRTY-TWO
NON-EIGHT-FOUR SCHOOLS IN INDIANA

Form of Organization	Number of Schools	Appellation	Number of Schools
6-3-3.....	11	Junior high.....	22
6-2-4.....	10	Departmental.....	5
6-6.....	6	Indefinite.....	2
1-12.....	1	No answer.....	3
7-1-4.....	1		
5-3-4.....	3	Total.....	32
Total.....	32		

Table I indicates that 60 per cent of the schools studied in Kansas have the 6-2-4 type of external organization, 30 per cent have the 6-3-3 plan, and 5 per cent the 6-6 form. Two other forms reported were the 7-1-4, and the 6-2½-3½. This does not necessarily mean that the 6-2-4 plan represents the present tendency. The predominance of this form is due, in part, to the fact that the seventh and eighth grades had previously existed within the 8-4 scheme of organization and administration, these grades in some instances using the departmental plan of teaching. Only one school out of

the forty does not make the first break in organization at the end of the first six grades of the elementary school. Ten schools out of the twelve listed as having the 6-3-3 plan used the name junior high school; one used the term intermediate school, and one was referred to as the departmental plan. Sixteen schools out of the twenty-four having the 6-2-4 plan used the name junior high school; seven used the term departmental, and one the term intermediate. The tendency to use the appellation junior high rather than departmental even in the 6-2-4 plan is clearly indicated by the findings of the Kansas study which show that 67.5 per cent of the schools prefer the appellation junior high school, and 25 per cent prefer the term departmental.

Six different forms of external organization are represented by the thirty-two non-eight-four schools of Indiana. The list may be regarded as representative of the state as a whole. Some of the forms listed are rare. Childs once reported twenty-two schools having the 6-3-3 plan, nine schools having the 6-2-4, two schools having the 7-2-3, one school having the 7-1-4, and one school having the 5-3-4 plan. About 34 per cent of the thirty-two schools studied in the present instance are composed of the 6-3-3 type; about 31 per cent of the 6-2-4 type; about 18 per cent of the 6-6 type; and about 15 per cent of other types.

Throughout the United States at the present time there are a dozen or more forms of external organization. There is a large uniformity of practice in breaking our educational ladder at the end of the sixth grade of the elementary school. There is a great variety of practice relative to the breaks made during the six-year unit of secondary education. The most frequent forms are the 6-6, the 6-3-3, and the 6-2-4 plans. There is considerable justification for raising the question whether many of the apparent attempts at reorganization have not resulted merely in shifting the break to a different place from that under the 8-4 régime. Certain it is that unity in any real sense has not always been realized in practice. Differentiation, at whatever stage it has been begun, has been in many instances mechanical and perfunctory.

The claim of increased retention of pupils has been almost universal. It is doubtful whether this claim has been widely

justified in terms of any very reliable measure. Enrolment in high schools of all forms of organization has increased very rapidly during the period of the development of the junior high school. This is due to a complexity of social, economic, and industrial factors. We need an improved technique of measuring the mortality of pupils and further studies of the comparative holding power of junior high schools and other plans of organization.

No doubt more than 50 per cent of the reorganized secondary schools of the country now promote pupils by subject rather than by grade. Sixty per cent of the forty Kansas schools and over 50 per cent of the thirty-two Indiana schools reported promotion by subject. The majority of these schools promote backward as well as accelerant children irregularly. We are lacking greatly, however, in a knowledge of the exact nature of such promotions. A precise knowledge of the manner of the promotions of subnormal and of supernormal pupils bears directly on the profitable treatment of individual differences. In addition to knowing promotion practices, we ought to continue to standardize our use of the terms subnormal and supernormal, retarded and accelerant. The clarification of this terminology would reduce ambiguity and wasteful discussion.

Credit for quality has gained ground during the last ten years. Several suggestive discussions have appeared in defense of this practice. A number of actual forms of practice of giving credit for quality have been reported. A study of different states indicates that too great conservatism prevails in this matter in junior high schools. Less than half of these schools have departed from the practice of giving credit on the basis of quantitative achievement only. There is a hopeful sign in the fact that perhaps one-fourth of these schools are beginning to use general intelligence tests for classifying pupils and for supplementing teachers' ratings. Kansas reports the use of intelligence tests in 35 per cent of the forty schools. There is considerable haziness among junior high school teachers and other school officers as to what is meant by the distinction between quality and quantity. It seems justifiable to assume that a part of the realization of economy in the educative process lies in giving recognition to quality in determining the credit to be given.

There has been some improvement relative to the teaching load under the reorganized plans. From 25 to 50 per cent of all junior high schools conform to the normal requirement of five teaching periods per day, of from forty to forty-five minutes each. Over 60 per cent of the Kansas academic teachers and less than 50 per cent of those in Indiana are reported as teaching five periods per day.

Apparently some headway has been made in the matter of supervised study. Considerably over 75 per cent of the junior high schools report supervised study of one type or another. Kansas reports some form of supervised study in thirty-five of forty schools, and Indiana in twenty-five of thirty-two schools. Seven varieties of time division for recitation and study plans were reported in Indiana. Practically all manner of time divisions of the class hour between recitation and study are reported. There is some tendency to increase the length of the period devoted to both recitation and study. There is little doubt but that an overclaim has been made for the virtues of supervised study in reorganized secondary education. One urgent need in this respect is a clearer statement of the technique involved in supervising the study of junior high school pupils. If supervised study is to be of real value in junior high school procedure, it will be necessary to make a study of the problem in great detail. Tabulated results from various states indicate that present conditions relative to supervised study are somewhat chaotic. The characteristics of the technique of supervised study in the subjects taught in the junior high school ought to be much more thoroughly standardized. The junior high school pupil, because of his relative immaturity, ought to have the very best guidance of this sort which it is possible to devise.

It is conceded by all that the success of reorganized secondary schools is largely dependent upon the ability of the instructional staff to be in full command of all the problems and principles involved in the presentation of subject-matter. One of the most hopeful tokens, on this point, is that over three-fourths of these teachers have had experience in teaching previous to their entrance upon junior high school instruction. These teachers come from the grades both above and below, but in much the larger numbers

from the grades below. The fact that comparatively few inexperienced teachers have been employed in junior high schools tends to insure the success of instructional work. In the Kansas study, only twenty-two teachers of a total of 460 were reported as inexperienced before entrance upon junior high school teaching. In Indiana, twelve teachers of 304 were reported as inexperienced. Of course, the degree of success in previous experience, as well as the type of training these teachers have had, needs to be taken into account.

Considerable gain has been made recently in the matter of the academic and vocational training of both academic and vocational teachers. Differences of opinion as to the requirements and qualifications of junior high school teachers exist in the minds of different school men and women. The tendency is to demand more and more training. In general, less than 50 per cent of the academic teachers have the Bachelor's degree. The vocational teachers hold degrees in smaller numbers, but in increasing proportion. Over 50 per cent of the academic teachers have had eleven semester hours in the study of education, the minimum requirement of the North Central Association. The vocational teachers report this professional training in smaller numbers at present but again in increasing proportion.

Closely connected with training is the question of salary. In the majority of junior high schools the salaries of teachers are less than in senior high schools. In a limited number of localities the salaries are the same. There is general agreement to the effect that salaries shall be dependent in part upon academic and professional training and in part upon tenure and successful experience. Both senior high school and junior high school teachers may rightfully be expected to have training in professional study, especially in presentation of subject-matter. It was noted earlier that most junior high school teachers have had previous teaching experience. It might be assumed that the amount of experience invariably increases teaching efficiency. Obviously this is not necessarily true. It is evident that salaries ought to be based upon at least two factors among others, namely, training and successful experience. Unless junior high school teachers have training in academic

subject-matter and professional study as well as successful experience equal to the senior high school teachers, there is justification for giving them a lower salary than is paid to senior high school teachers.

The housing of junior high schools is not usually the result of scientific management. The buildings and rooms are largely the outgrowth of accidental circumstances and local emergency situations. Many factors need to be considered in the housing of these schools. An industrial center, a railroad division center, and an agricultural center present only three types of conditions that need to be considered in erecting buildings. Naturally, only the larger cities tend to house schools separately. Housing, so far as rooms are concerned, has been very largely a matter of administrative convenience. In the main, there has been considerable improvement in school architecture and equipment. But we are far from scientific management at present in housing. It will scarcely be possible or desirable to standardize housing on a uniform pattern for all junior high school communities. There are varying factors in different localities, and reliable and extensive surveys of all the facts should be made.

The administration of teaching and of the schedule is intimately connected with the manner of housing. The tendency is to combine the junior high school program with that of the senior high school rather than with that of the grades below. In 50 per cent of the cases or more there is a separate junior high school principal. In the matter of supervision of the junior high school, there is wide variation of practice. In some states there are at least seven different combinations of supervisory officers. For example, junior and senior high school principals supervise individually or conjointly. Again, the superintendent supervises alone, or the superintendent and principal conjointly. The size of the school often determines this. There is a real need for an analytic statement of the duties of the junior high school principal or supervisor.

One of the most pressing problems for solution is the satisfactory administration of junior high school curricula. The actual nature of these curricula is not easy to determine from printed programs of study. Indiana reported a score of occupational activities, such as mills, factories, shops, and so forth. There is some recognition

given to these activities in the arrangement of the school curricula. Increasing offerings of foreign language, mathematics, and science below the ninth grade are reported. Work of a vocational nature was very widely represented, due in part, no doubt, to the fact that some work of this sort is required by state law.

Recently an increased interest has been manifested in a clearer and revised statement of secondary-school objectives. An analysis of occupational activities and processes involved in different occupations has been suggested as a reliable means of determining specific objectives in education. In every state, in the communities represented by junior high schools, there are at least a score or more of occupational activities represented. Job-analysis should be the method of procedure in determining the demands represented by the occupational experiences of the pupils. The newer subjects have become generally intrenched in the curricula of the junior high schools. There has been considerable gain in the way of incorporating in school curricula materials corresponding to the performances, interests, and experiences of the occupations represented in the homes of the children who attend the schools. There is very much yet to be done, however, in developing a real functional relationship between so-called school learning processes and extra-curricular experiences and processes. It is true that the more traditional subjects of Latin and mathematics have been introduced below the ninth grade. But it is questionable whether the subject-matter in such subjects has been really re-worked and reshaped so as to meet the individual needs of junior high school pupils any better in many instances than was the case under non-reorganization conditions. It occurs to the writer that the job-analysis attitude of mind must be carried over into both the traditional and non-traditional subjects of the junior high school. The content of the subjects taught in junior high schools needs to be outlined in much clearer detail before we can establish the claim of differentiation of subject-matter so as to meet individual needs.

OPPORTUNITIES FOR CORRELATION BETWEEN COMMUNITY LIFE AND ENGLISH. II¹

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Methods of stimulating reading.—Much of the success of inducing pupils to read depends on the methods employed by the teacher. In the community-life course, for example, it has been found useful, when taking up a new topic, to spend the entire first period in running over the new book list with the pupils for the purpose of arousing their interest in some of the titles. As a rule, some of the books have previously been read by members of the class; a few enthusiastic words from them count for more in creating a desire to read a particular book than a long eulogy from the teacher. On the other hand, an anecdote about the author or a brief description of the character or contents of a book from the instructor often proves an effective stimulus. It is a good plan also to have some of the books in the room where they can be shown to the class while the teacher talks about them or their authors, for there is magic in the very appearance of a book possessing an attractive format. Better still, as constituting a lure which is well-nigh irresistible, is the reading aloud of a choice passage in a book, stopping, of course, in the manner of a serial, at the most exciting point, leaving the outcome of the episode or the mystery undivulged.

In this connection, further comment should be made about the assistance which has been given by the pupils in building up the bibliographies. After a new bibliography has been discussed,

¹ Part I described the administration, organization, and chief objectives of a combination course in community-life English which has been carried on in the laboratory schools of the University of Chicago during the last four years. The types of reading material used, the amount of reading done by the pupils, and the necessity of having an abundant and varied supply of interesting and worthy books were considered.

the pupils are asked to suggest other titles suitable for the list. They are told that any reference worthy of being added to the bibliography should have two qualities; first, it should relate to the topic in hand and, second, it should possess literary merit. Every book suggested by the pupils is subjected, therefore, to critical examination. The instructor, of course, does not summarily reject titles which are not worth while—such action would speedily destroy any desire pupils might have to make contributions. On the contrary, all proposals are submitted for the consideration of the class. If the book is familiar, its merits and its rights to a place on the list are discussed. If it is unknown, the pupil suggesting it explains its character briefly, and the discussion follows. The pupils have thus contributed many valuable suggestions. A motive has also been furnished for reading as well as an unusual opportunity for cultivating a discriminating taste for good literature.

As a rule, decision by the teacher is unnecessary. If considerable doubt exists among the members of the class concerning the literary merits of a book, it is placed on the list tentatively, and several pupils are asked to read it. It was of such a book, *The Girls of Morning Glory Camp Fire*, that one of the girls reported, "I liked this story in a way for I have never read many like it, and it is a pleasure to try some different kinds of stories occasionally, but it was told in such a flowery, affected way that I tired of it quickly." As an illustration of a class session of the sort described, the following extract from the written report of an observer is of interest.

The teacher was not conducting a regular recitation, but had asked the pupils to bring to class the names of imaginative books relating to "Recreation," the next topic in their course. I was interested in the choice of books which the children offered. One boy recommended the "High School Boys' Series" by Hancock. The instructor did not condemn the selection but intimated that he was rather suspicious of "series books." He then asked the opinion of the class concerning them. One girl, in a deprecatory tone, pronounced them "silly hero books in which one boy always got into trouble and then came out with flying colors." A boy rather naively described them as "all right to read aside from school work," and added that he did not think they were "good literature." Similar discussions occurred over such books as *Catty Atkins*, *Mark Tidd in the Backwoods*, and *The Real Diary of a Real Boy*.

On the other hand, Mark Twain's *Roughing it* and *Some Rambling Notes of an Idle Excursion* and Booth Tarkington's *Penrod* and *Seventeen* were eagerly welcomed. The discussion showed that the pupils were beginning to distinguish between good literature and mediocre.

In cases which the instructor thought doubtful the titles were placed on the book list with a question mark after them, and the pupils who had suggested them were asked to bring the books to school in order that the other members of the class might read and pass judgment upon them.

Methods of checking reading.—Although the initial stimulus in getting boys and girls to read is of great importance, it is even more essential not to chill or destroy their enthusiasm by laborious and distasteful checking methods. For example, the practice of requiring long formal book reports or reviews which is followed in some schools usually dulls, and occasionally ends, interest in reading. To know that at the completion of a book there is the task of writing a paper about it often takes away much of the joy in reading it; indeed, such a rule, if applicable to all books read, operates as a penalty for extensive reading—the more books read the more reviews required. In short, if wide reading be a major objective in a course, a checking method of this kind is one of the most certain means of preventing its accomplishment.

To avoid this pitfall and at the same time to provide effective methods of checking the reading, a number of devices have been used in the community-life classes. One of these devices is to require pupils to make out for each reference read a 3×5 (or 5×7) card containing answers to the following questions. What is this article or book about? How does it relate to the topic? Did you like it? If so, what did you like in it? If not, what did you dislike in it? (Not *why* did you like or dislike it?) By limiting answers on any one reference to a single card (the back as well as the face of the card may be used) not only is conciseness of statement put at a premium and a much-needed phase of instruction in composition provided, but the requirement is prevented from becoming burdensome. An example of the better type of reading card, slightly edited for the present purpose, is presented on page 121.

Each pupil has a small filing case in which he keeps his cards classified by topic and by author. From time to time the cards are handed in to the instructor, usually as work on a given topic

draws to an end. Unless there are errors which call for correction the cards are not returned. An index of the interest which they arouse appears in the considerable proportion of the pupils who make copies for their own use. In more than one instance the habit thus begun of recording the impressions of their reading has continued long after the completion of the community-life course.

In addition to their value as a checking device, the reading cards serve several useful purposes. Tabulations of answers to the third question, for instance, furnish substantial evidence of the

Riis, Jacob

(Pupil's Name)

Neighbors, 1-209

1. This book is a collection of short stories about our poor and, often, foreign "neighbors" who live in the tenement district. Each story describes vividly the hardships of these people and the poor conditions under which they live.

2. These stories deal with the topic of immigration in story form. They bring the reader right down to where he can understand the struggles of immigrants in an intimate way. They show the need of a helping hand among these people.

3. This book was the first of its kind I ever read. I found it extremely interesting as the stories were all taken from real life, although some of them have little point other than to illuminate the conditions in the tenements.

appeal which the references make to the pupils. They thus lead constantly to improvements in the bibliographies. Moreover, by placing the better reports in a filing case in the school library where they are readily accessible to pupils, or by reading them to the class, the cards prove invaluable in stimulating reading.

The reports also demonstrate in a conclusive way the wide variation between the reading tastes and capacities of different pupils in the same grade. One pupil says of Mary Antin's *At School in the Promised Land*, "I liked the book immensely because it was written in such a simple, quaint way"; another comments, "I don't like it at all." "A very lovely poem," is the opinion of

one pupil of Lanier's *When Love Looked for Hell*; "I didn't care much for it because it was very hard to understand," says another. Of Ross's *The Old World in the New* one boy writes, "My interest was held almost throughout this book because the author has so much to say"; a second says, "Very deep, yet interesting—from this chapter I learned very much about our forefathers"; a girl comments, "I liked this book very much—it tells of the different traits of the immigrants to this country"; another girl reports, "I didn't care much for it, because it is mostly all facts." While most ninth-grade pupils—the preceding quotations are all from ninth-graders—were beyond their depth in Wordsworth's *Intimations of Immortality*, now and then one would report, "I enjoyed it," or "I found it very beautiful."

These differences in taste emphasize the need of exposing pupils to a great variety of books if habits of extensive reading are to be promoted. There are, of course, references on which general approval or disapproval was occasionally expressed. For example, *Roosevelt's Letters to His Children* almost universally received comments like the following: "Interesting all through," "I liked it because it was very humorous in parts," "I enjoyed these letters very much because they showed a different side of Roosevelt," "This is a lovely book and a good illustration of family life," "A book every American should read," "I enjoyed it immensely." But even with a book like this, as if to emphasize the point made, there was an occasional pupil who, as one boy put it, "thought the book rather dry and did not finish it."

A second method of checking which proves at the same time to be an incentive to reading is the "symposium." Now and then during the study of a topic—in most instances from two to three weeks are spent upon each unit—a class period or a portion of a period is set aside to permit the pupils to talk over the reading they are doing in an informal, conversational manner. This opportunity for exchanging opinions, criticisms, questions, and suggestions, makes the symposium a natural and interesting occasion and enables the teacher incidentally to discover what and how the children are reading.

As the time devoted to the study of a topic draws to an end, a third method of checking is afforded by an exercise in oral com-

position. Each pupil is asked to prepare a somewhat formal talk of from two to five minutes in length on some phase of his reading. Since a floor-talk, as this exercise is called, is primarily a matter of oral composition, the discussion of it will be deferred to the succeeding article.

A written exercise, which is occasionally employed to supplement or to take the place of the floor-talk, also proves a useful checking device. At the conclusion of the work on a given topic, the pupils are asked to hand in with their readings a card called the "Preliminary Summary Card." This card contains a list of the readings (author, title, and pages) which have been done in connection with the study of the topic. At the left of the author's name each pupil indicates by the figures 1 and 2 the two books which he has enjoyed most. He is asked to write a brief paper (from fifty to one hundred and fifty words) about one of these books. Since his selection will naturally be his favorite, it is usually suggested that he comment on the book in such a way as to make others desire to read it. An idea of how well pupils sometimes succeed in this effort may be obtained from the following paper on Spearman's *The Nerve of Foley*. This paper is given in the language of the boy who wrote it, with the exception of the omission of one word and the change of another.

"Toot! toot!" The engine of the flyer approaches the grade crossing. All of a sudden, a horse and buggy with only a baby in it is seen on the crossing only a hundred yards ahead of the train. If the horse remains still, the carriage containing the baby will be safe; if it moves six inches one way or the other, death will certainly overtake the child. Not hesitating a moment, but with a sure step—ah! but that's a secret! Read *The Nerve of Foley* and find out what happens to the baby.

Rushing along at seventy miles an hour is a flyer—a special containing a man who is speeding to Denver on a life or death mission. But what is that ahead? The bridge is afire! If the train can cross, it will get to Denver in time; if not, the chances are that it will be too late. The flames are eating up the bridge. Does the engineer apply the emergency brake? Or does he open the throttle wider? Does the child in Denver who is in such a critical condition die? or does he live? *The Nerve of Foley* will tell you. You have missed a rare treat if you do not read this book.

Assignment and home work.—The management of assignments and home work has a notable effect on the reading done. After

several experiments, assignments of work to be done outside the classroom have been entirely discontinued in the community-life course, except as explained in the following paragraph. The study of the text, which forms the essential and unifying core of the course, the making of outlines and summaries, the writing and correcting of themes, are all done in the classroom during the regular class period. Pupils who fall behind in their work through sickness, incapacity, or lack of application, are required to make up their work, usually in a study class at the end of the day, at home, or, in the case of prolonged absence from school, by private tutoring.

The class hour thus becomes primarily a period for work. Recitations, as the term is commonly employed, do not obtain. Only at the beginning of the study of a topic when the book lists are discussed and toward the end, when floor-talks and themes are given, are group activities predominant. At other times, with the exception of occasional informal discussions, explanations, and debates, the work is for the most part individual in character, the teacher employing the class period in diagnosing the difficulties of individual pupils and in prescribing or suggesting specific remedies to overcome these difficulties.

The confining of work or study to the class period leaves the pupils free to follow other interests outside the classroom. In the community-life course they are told at the beginning of the semester that they are expected to give an average of half an hour a day to reading from the titles on the book list. All of the members of the class are occasionally asked to read certain specific references, while the advantage of reading some selections in each of the three groups on the book list is emphasized; but, as a rule, pupils are allowed to read in accordance with their own tastes. The books not in the recitation rooms are placed for convenience on reserved shelves in the library. Here pupils are told to browse until they find a book which interests them. The opinion of the various classes has generally been that one frequently cannot discover whether a book is likely to prove interesting until he has gone through a chapter or two.

Although pupils are encouraged to read as extensively as their time permits—and the figures previously given afford evidence that the half-hour minimum is greatly exceeded—every precaution

is taken to prevent the setting up of wrong motives. This point deserves emphasis, for any activity which is subjected to quantitative measurement—be it sewing on buttons, laying bricks, writing term papers, or reading books—has in it a constant temptation to shoddy work. In order to guard against this danger pupils are told repeatedly that while the teacher is interested in having them read as much as they can without neglecting their other school work, he is much more interested in their reading well what they do read. They are told that their grades do not depend on the amount of reading they do. In a number of instances, in fact, the grades of pupils with large reading totals have fallen below those of others who read but half as much, and in no case has a pupil failed for a lack of reading. There is, as might be expected, however, a high correlation between the pupils who read widely and those who do superior work in composition and other phases of the course.

The attention of the class is also called to the fact that the number of pages read does not of itself indicate the time given to the course since he who reads chiefly among the works listed as imaginative literature will naturally have a larger total than he who reads widely among the "study references" and the works of "history, biography, travel, and essay." In this connection it may be added that from three-fourths to four-fifths of the reading of pupils is in the fields of imaginative literature and of history, biography, travel, and essay.

Emphasis, in short, is laid upon the fact that the amount of reading which should be done is determined by the class as a whole; that it sets the standard, not the teacher; that his demand will be met by the half-hour requirement. These efforts to prevent wrong motivation seem to have been successful if one may judge by the frankness with which the pupils express themselves upon books and the enthusiasm with which they read worthy literature. The experience of a ninth-grade girl is typical:

I read this book [Jacob Riis's *How the Other Half Lives*] to find out about the immigration problem. Nothing too good can be said for it. After I had read enough for school, I read on and on.

Another Freshman, a boy of mediocre ability, summed up the matter in these words:

Before this semester the only books I liked were cheap books that were utterly useless and gave no help to me at all. During the year I read books and even though I disliked them I finished them. Finally, I could take up the driest book and read in it without throwing it away as I had done before. I read many books in relation to the topics, and on the whole they were very interesting. I am glad I have developed this taste.

The behavior of pupils during vacation, when free from school control, furnishes, perhaps, the best evidence whether the habits, ideals, and attitudes inculcated by the school have taken root. Thus, if a liking for worthy literature has been created or stimulated, the taste should manifest itself in the kind of reading done in leisure hours.

In an effort to discover whether anything of this sort takes place in connection with the community-life course, the pupils in one section were asked to hand in cards listing any reading they had done during the recent holiday recess of one week. Nothing had been said to them, directly or indirectly, about doing any reading during vacation; the topic under consideration had been completed, and a new book list had not yet been distributed. The pupils were told that the cards asked for had nothing whatever to do with the work of the class, that the reading done or not done would not affect their records, and that the information was desired solely to satisfy the curiosity of the instructor.

Of the twenty-five pupils in the class, all but one reported some reading. Exclusive of periodical literature, the amount varied from two hundred pages to twenty-five hundred. The great bulk of the reading was in distinctly worthy literature. Among the books reported were Dickens' *Oliver Twist*, Kipling's *The Day's Work*, Shakespeare's *Merchant of Venice*, Hugo's *Les Misérables*, and Goldsmith's *The Vicar of Wakefield*.

This result was not due solely—perhaps not even chiefly—to the community-life course. Influences which function in the cultivation of taste are too numerous and too obscure to be identified easily. The evidence seems to show, however, that the work in community life played a not inconsiderable part.

In Part III the phase of the course dealing with expression will be presented.

[To be concluded]

PSYCHOLOGY OF THE HIGH SCHOOL¹

HAROLD JOHNSON

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The modern, up-to-date city high school is a unit of somewhat complex character. It is in reality a small city, populated with the embryo citizens of the nation. In the school, the American youth is molded and fitted to become a useful man or woman. As a Freshman he is received, a green and unknown quantity, a store-room of latent power of which he himself is not aware, and in his four years in the school this same dynamic energy is uncovered and groomed, its rough edges smoothed and its weak spots bolstered until finally the graduate is presented to the world, ready to take up his share of its burdens or to prepare himself further in college and university.

Small wonder then that the life of the boy or girl while in the high school must be carefully watched and supervised. Small wonder that those inborn tendencies for action which all humans possess must be carefully guided and directed into proper channels. School authorities are realizing that an education consists of more than mere drill in mathematics, science, and language. They are beginning to appreciate the demand for social expansion and growth, and to this end social psychology is devoted.

Our own school, one of the larger ones of the state, has furnished an opportunity for the study of various problems, and it will in the future, no doubt, serve as a working ground for the experiment of various social systems. Perhaps one or two general examples taken from our school life will serve to illustrate the fallacy of cultivating only the book side of education. It is probable that the spirit of uneasiness and the general restlessness that

¹Prepared as a class report by a Senior in the Decatur High School in a course on psychology given by the principal, Thomas M. Deam. It presents so well a student's point of view that it is published after deleting a few paragraphs which are of purely local significance. [Editor.]

pervaded our school in 1918-19 were due partly to the lack of opportunity for students to utilize their excess energy. The institution was blessed with over one thousand energetic, impetuous boys and girls, eager to be active, resenting confinement, and craving companionship. At the same time the school was devoid of any constructive social program, all things of this nature being taken care of by the various societies which catered exclusively to their limited memberships. As a result, this pent-up energy was given no legitimate outlet, so eventually escaped through sporadic outbursts of vandalism. Contrast that, then, with conditions today. With more students, but with an organized system of social recreation, the school has prospered in ways even far removed from the social side. Dancing, hitherto taboo, was instituted and completely revolutionized social activity. The student organization was given charge of arrangements and, inasmuch as the committees were students themselves, it was easy to diagnose the wants of the student body. In short, the entire attitude has changed, work has gone on more smoothly, and refractory evil-doers have been reduced to a minimum.

Our experience in Decatur has been paralleled in numerous other schools throughout Illinois. In Chicago, one high school, which is much larger than our own, experienced the same trouble for many years, and finally when an organized social program was introduced, the student body acclaimed it an unqualified success. Another Chicago school which could not boast a social program solved its problems by providing club facilities for boys and girls, sponsoring afternoon dances, and enlarging and improving the social life of the school. In a high school in Los Angeles, California, one of the most perfect self-governing bodies of students in the country exists. All social activity is under the jurisdiction of the student organization and the wonderful success of this high school is testimonial enough of the wisdom of the student-government plan in social activity.

Thus it becomes apparent that relaxation and social recreation in the high school are of paramount importance. Consider the manner in which these principles of social psychology must be applied and the way in which they affect students of various ages.

No two individuals are alike, and furthermore the same individual undergoes great changes. With this in view the psychological principles must be applied accordingly. It is logical and easily seen that the methods by which a child in the grades is disciplined, entertained, or instructed would avail little if used with high-school pupils. But there is even a finer distinction than this. The first two years of the high-school life of a boy or girl produce but little outward change. They are still addicted to the hoydenish pastimes and boisterous tendencies peculiar to all normal youngsters. The true dignity of the institution has not as yet exerted its sobering influence, and they are still to pass from the childish into the more mature state. It is natural, therefore, that the younger students in the lower classes do not enter as enthusiastically into the more or less arbitrary social functions as do their older brethren. They make their own society, choose their own companions, and set their own standards. They are content to amuse themselves in their own way, so the more elaborate gatherings appeal to them only as something new and unique.

But in the Sophomore, Junior, and Senior years things are different. The period of adolescence has passed; the mental side of the student has developed and expanded; and he thinks more clearly and logically. He is more active in a constructive way and demands an outlet for the energy which his new-found strength has developed, so it is here that the direction of these energies into useful channels is important; or, in other words, the science of knowing how to handle this element is of value, and this science of social conditions is really social psychology.

The task of outlining a social program for next year is rather difficult and uncertain since there are several new elements that must be given consideration. However, there are a few general things which the social committees would do well to consider. The social committee of the student organization should itself be more fully organized. At least two standing committees should be appointed, one to act as a detail committee, which shall attend to all details which may arise in the line of that committee's duties, and an executive committee, which shall be charged with the duty of planning and arranging the various functions coming under the

jurisdiction of the social committee. For instance, in the giving of the noon-day parties, the detail committee should be responsible for the orchestra, the conduct of the dancing, watching the doors, publicity, and other matters of this sort, thus relieving the chairman of the responsibility. The executive or advisory committee should formulate all plans and arrangements and direct the action of the main committee.

In carrying out their plans for next year the social committee should include an ample number of dancing parties for those who care for this form of amusement. By all means continue the dances. The noon-day parties were successful enough to warrant their continuation, and some phase of this plan should be adopted. The Friday afternoon parties could be held more frequently. All these should be vigorously pushed, but there is one thing that was lacking this year that should be given due consideration, and that is social functions for those who do not dance. There are perhaps 75 per cent of the enrolled students of the high school who cannot, or at least do not, dance, and some provision should be made for these. Possibly it would be well to appoint a standing committee from the larger one to care for these parties alone. This committee should be entirely exempt from other work, and should devote their time to the planning and execution of these special parties. There is enough talent in the high school to provide an hour's entertainment any time. Music, humorous readings, and talks could be given, and these, with one or two good comedy sketches or vaudeville acts by proficient students, would furnish a splendid entertainment, and would leave those who do not dance with the feeling that they had not been slighted. Do not try to do too many things at once, or at least do not expect the chairman to do all the work for the whole committee. A well-organized, efficient, constructive social program will accomplish wonders in the school, so it will be well to place the most responsible students in charge of the social activities, give them authority, and demand results.

HOW SIMPLIFIED SPELLING MIGHT SIMPLIFY

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A writer in the October *Atlantic Monthly* voices the obstinate questionings of many teachers of English in the words, "What we want to know about simplified spelling is whether it will simplify life for us and our children."

The purpose of this article is to determine how far the application of the rules of simplified spelling would immediately relieve the difficulties in English spelling experienced by our boys and girls who aspire to go to college. The material used is the misspellings actually appearing in compositions upon subjects taken from their own experience by 2,414 candidates for the English examinations of the College Entrance Examination Board in the seven years from 1913 to 1919, inclusive. The total number of such misspellings was 14,002; the total number of different words misspelled was 2,602. But misspellings of 775 of these 2,602 words constituted 75 per cent of the total number of misspellings. These 775 words and the 10,497 misspellings to which they gave rise were taken as the basis of the study.

The question at issue must sooner or later be answered by every teacher of English. If it is a fact that a schoolboy's misspellings are due to the intricacies of English spelling and that spelling cannot be effectively taught until these forms are simplified, then our labor is in vain. If it is true that the school time now spent in the teaching of spelling and in addition the school time now given to reading could be saved if a system of phonetic spelling were adopted, then the teacher of English should devote his energy, not to establishing in the minds of his students the accepted forms of words, but to introducing new forms.

It is charged by the official advocates of simplified spelling that teachers "in well meant but mistaken efforts . . . are too prone

to burden [the pupil] with rules."¹ It may be observed in passing that this charge can hardly be brought against the modern teaching of spelling, which presents very few rules and often attempts to derive those inductively. What is important to notice is that the first step of the Simplified Spelling Board in the process of simplifying is to issue a code of thirty-two rules, some of them more intricate and puzzling to high-school pupils than any at present taught. It may be said that simplification can proceed only by rule, expressed or implied, and that is true. But in view of the uncertainty among teachers as to the feasibility of teaching the rules of simplified spelling as codified and in view of the difference of opinion among careful investigators as to the amount of simplification that would be thereby accomplished—such a conservative writer as Burnham,² for instance, holding that simplification in orthography would accomplish little compared with the possibility of economy to be looked for from improved methods of teaching—it was determined to estimate the degree of applicability of these thirty-two rules to the recorded misspellings of the 775 words referred to. Such a comparison is useful. The main argument of the Simplified Spelling Board is an educational one, and it is therefore well to see how far their present program will effect improvement in the teaching and learning of spelling. The comparison was made with a full appreciation of the circumstances which limit its value. It is obviously illogical to appraise the power of simplified spelling to simplify by applying its rules to the misspellings of students trained for the most part in the traditional form of words. Nor must we overlook the fact that behind this record of the 775 words most frequently misspelled by high-school and preparatory-school students is the labor of teacher and pupil in acquiring the accepted form of many common words unphonetically spelled (*ghost, rough, bough*, etc.) which have become so fixed in mind as not to figure in the list of 775 words most frequently misspelled. It is, however, significant that such words do not take

¹ *Handbook of Simplified Spelling, Part II*, p. 12. New York: Simplified Spelling Board, 1920.

² W. H. Burnham, "The Hygiene and Psychology of Spelling," *Pedagogical Seminary*, XIII (December, 1906), 474-501.

high places in the frequencies of misspelling. There are, according to Alexander,¹ twenty-one ways of spelling the sound *a* in *cake* and twenty-four ways of spelling the sound *ee* in *feet*. It is easy to point out these anomalies, but, as Alexander has observed, they do not constitute the main difficulties which children find in learning to spell.

The rules of simplified spelling, as published by the Simplified Spelling Board, are thirty-two in number, if each of the six cases in which it is proposed to drop final *e* is counted as one rule. Under the head of "Additional Simplified Spellings" a new spelling for thirty-eight other words is proposed. The list of 775 words was carefully studied with the object of segregating all words in the list whose accepted spelling would be affected by any of the changes proposed. By accepted spelling is meant any form given as preferred or alternate by one or more leading American dictionaries. Under each rule were grouped the words which would be affected by the application of that rule. The proposed simplified spelling of each of these words was then compared with the recorded misspellings; the number of misspellings which would actually have been obviated by the adoption of the simplified form was recorded; and the percentage of reduction which would be effected by the application of each rule was calculated. In Table I the first column presents the rules of simplified spelling numbered consecutively from 1 to 32; the second column records the number of times the words to which the particular rule applies have been misspelled according to the records; the third column shows the number of these misspellings which would be correct were that rule generally accepted; and the fourth column presents a percentage estimate of the degree of applicability of the particular rule to the misspellings.

Of the 775 words most commonly misspelled in the free compositions of boys and girls of seventeen to eighteen years of age, 107 or 13.8 per cent would be affected by the rules of simplified spelling; of the thirty-two rules, eleven have no application to any word or misspelling in the list; of the misspellings of the 107

¹ "How May Instruction in Spelling Be Made More Effective?" *Proceedings of the New York State Teachers' Association* (1908), pp. 319-28.

TABLE I
DEGREE OF APPLICABILITY OF EACH OF THE THIRTY-TWO RULES AND OF THE
SPECIAL LIST

Rule	Frequencies of Misspellings of Words Which Come under the Rule	Number of Misspellings Which Would Be Obviated by Simplified Spelling	Percentage of Misspellings Which Would Be Obviated by Simplified Spelling
1. <i>ae, oe</i> initial or medial. Spell <i>e</i>	0	0	0
2. <i>bi</i> pronounced <i>i</i> . Drop silent <i>b</i>	19	1	5.3
3. <i>ced</i> final. Spell <i>cede</i>	33	23	69.7
4. <i>ch</i> pronounced like <i>c</i> in <i>car</i> . Drop silent <i>h</i> , except before <i>e, i, y</i>	13	7	53.8
5. Double consonant before <i>e</i> final silent. Drop last two letters	5	4	80.0
6. Double consonant final. Reduce double to single; but in <i>-ll</i> only after a short vowel, and in <i>-ss</i> only in monosyllables. Retain <i>gross, hiss, off, puss</i>	20	6	30.0
7. <i>e</i> final silent. Drop <i>e</i> after a consonant preceded by short vowel stressed	5	0	0.0
8. <i>e</i> final silent. Drop <i>e</i> in <i>are, gone</i> , and in <i>were</i> when not pronounced to rhyme with <i>there</i>	0	0	0.0
9. <i>e</i> final silent. Drop <i>e</i> in the unstressed final short syllables <i>ide, ile, ine, isc, ile, ive</i> , pronounced as if spelled <i>id, il, in, is, it, iv</i>	349	33	9.4
10. <i>e</i> final silent. Drop <i>e</i> after <i>lv, rv</i>	13	0	0.0
11. <i>e</i> final silent. Drop <i>e</i> after <i>v</i> or <i>z</i> when preceded by a digraph representing a long vowel or a diphthong	202	1	0.5
12. <i>e</i> final silent. Drop <i>e</i> in <i>oe</i> final pronounced <i>o</i>	0	0	0
13. <i>ea</i> pronounced as in <i>head</i> , or as in <i>heart</i> . Drop the silent letter	149	44	29.5
14. <i>ed</i> final pronounced <i>d</i> . When the change will not suggest a wrong pronunciation, drop silent <i>e</i> , reducing a preceding double to a single consonant. Note.—The <i>e</i> is retained only in cases where it has by convention a diacritic use, to indicate a preceding long vowel, or in the case of consonants, <i>c</i> sibilant or <i>g</i> pronounced <i>j</i>	173	83	48.0
15. <i>ed</i> pronounced <i>i</i> . When the change will not suggest a wrong pronunciation, spell <i>i</i> , reducing a preceding double to a single consonant, and changing <i>ced, sced</i> , final, to <i>st</i> . Note.—The <i>e</i> is retained only in cases where it has by convention a diacritic use, to indicate a preceding long vowel, or in the case of consonants, <i>c</i> sibilant or <i>g</i> pronounced <i>j</i>	99	22	22.2
16. <i>ei</i> pronounced like <i>ie</i> in <i>brief</i> . Spell <i>ie</i>	171	144	84.2
17. <i>ey</i> final unstressed pronounced like short <i>y</i> final. Drop silent <i>e</i>	14	8	57.1
18. <i>gh</i> pronounced <i>f</i> . Spell <i>f</i> ; drop the silent letter of the preceding digraph	0	0	0.0

TABLE I—Continued

Rule	Frequencies of Misspellings of Words Which Come under the Rule	Number of Misspellings Which Would Be Obviated by Simplified Spelling	Percentage of Misspellings Which Would Be Obviated by Simplified Spelling
19. <i>gh</i> pronounced like <i>g</i> in <i>gas</i> . Drop silent <i>h</i> ..	0	0	0.0
20. <i>gm</i> final. Drop silent <i>g</i>	0	0	0.0
21. <i>gue</i> final after a consonant, a short vowel, or a digraph representing a long vowel or a diphthong. Drop silent <i>ue</i> ; tongue spell <i>tung</i>	0	0	0.0
22. <i>ise</i> final pronounced as if spelled <i>ize</i> . Spell <i>ize</i>	60	3	5.0
23. <i>mb</i> final after a short vowel. Drop silent <i>b</i> ..	0	0	0.0
24. <i>ou</i> before <i>l</i> , pronounced like <i>o</i> in <i>bold</i> . Drop silent <i>u</i> , except in <i>soul</i>	0	0	0.0
25. <i>ough</i> final. Spell <i>o</i> , <i>u</i> , <i>ock</i> , or <i>up</i> when pronounced as if so spelled; spell <i>plow</i>	43	5	11.6
26. <i>our</i> final, with <i>ou</i> pronounced as a short (obscure) vowel. Drop <i>u</i>	0	0	0.0
27. <i>ph</i> pronounced <i>f</i> . Spell <i>f</i>	102	7	6.9
28. <i>re</i> final after any consonant except <i>c</i> . Spell <i>er</i>	0	0	0.0
29. <i>rh</i> initial. Drop silent <i>h</i>	6	5	83.3
30. <i>sc</i> initial pronounced as if spelled <i>s</i> . Drop silent <i>c</i>	34	6	17.6
31. <i>u</i> silent before a vowel medial. Drop <i>u</i>	30	3	10.0
32. <i>y</i> between consonants. Spell <i>i</i>	71	26	36.6
Special list.....	40	1	2.5

words affected, 28.8 per cent would have been correct under the rules; of the total number of misspellings of these 775 words, 4 per cent would have been correct under the rules.

If, therefore, the teachers of the 2,414 boys and girls who wrote compositions for entrance to college had followed the advice of the Simplified Spelling Board and had taught these students perfectly all of the thirty-two rules of simplified spelling and the special list of words, and if these students had thus acquired the ability to apply these rules infallibly in such places and in such places only as they were applicable, their spelling ability as shown in the compositions they wrote would have been 4 per cent better.

If this comparison is unfair to those who advocate the introduction of this code of rules into schools in that it ignores the labor of pupils in acquiring the forms of unphonetic words which do not appear on the list, it is unduly favorable to them in other ways. It takes for granted that these thirty-two rules with their exceptions can be taught and that they can be applied perfectly by every

pupil; that the student knows and can identify medial and sibilant consonants, long and short vowels, and accented syllables; and that the student whose pronunciation is already uncertain can tell what other pronunciation contemplated changes in spelling might suggest. The comparison counts as correct under the fourteenth rule of simplified spelling all such forms as *occured* (the form *occured* nowhere appearing). More than 87 per cent of the misspellings of *occurred* take the form *occured*. The ordinary high-school student has been taught a rule which will automatically spell *occurred* and every word of the same class with one exception in the list of 775. If he cannot learn and apply the rule he has, why should it be assumed that he can learn and apply the more complicated rule which the Simplified Spelling Board substitutes, requiring, as it does, a judgment as to whether the contemplated form will or will not suggest a wrong pronunciation?

A spelling rule must be evaluated in accordance with the extent and certainty of its applicability to the material in question. This material, from the teacher's point of view, is the words to be taught; and the words to be taught are the words most commonly misspelled. If rules for spelling do not help in the learning of the required material, it is useless to teach them. It must be admitted that some of the spelling rules now taught have little rational justification. From the point of view of their applicability to the given material and their usefulness in the teaching of it, four rules of English spelling appear to be of importance. They are the rule for the final single silent *e* before a suffix; the rule for the final single consonant before a suffix; the rule for *ei* and *ie*; and the rule for a final *y* before a suffix. These four rules have a joint application of some 12 per cent to the recorded misspellings, and there is a total of only eight exceptions to these rules in the list of 775 words. It is a discouraging outlook for the teacher who would fain see English spelling made more rational when as a first step in simplification he is invited to abandon four rules which apply to 12 per cent of the misspellings which he wishes to anticipate and prevent and to substitute for them thirty-two rules which apply to only 4 per cent. It is idle for the Simplified Spelling Board to assure the teacher that "the worth-whileness of the movement must be judged, . . . not by the saving actually made by the

simplifications proposed now, but by the savings of a progressive advance, of which the present proposals are but the first step"; for if the first step does not simplify the teacher's problem, what evidence has he that succeeding steps will do so?

It would appear that the simplification of spelling will be attained most easily and most quickly by establishing the desired reforms in the writing habits of schoolboys and schoolgirls. Spelling reform can gain acceptance in the schools only after it has been demonstrated to teachers that a proposed change will effect an actual simplification. No experienced teacher of English would attempt to teach the formidable array of rules set forth by the Simplified Spelling Board; first, because they transcend in intricacy and number the rules now taught and, second, because they are not primarily designed for, nor practically adapted to relieving, the actual spelling difficulties of schoolboys and schoolgirls.

Might not the attitude of teachers in general be more favorable to the much desired rationalization of English spelling if the Simplified Spelling Board came to them with statements which accord with the facts and with a simple definite program the applicability of which to their problems is demonstrable? Rule 3, which proposes to spell *exceed*, *proceed*, and *succeed* in accordance with the normal *-cede*, would eliminate about 70 per cent of the misspellings which arise from the present confusion of these verbs. Again, one of the eternal bugbears of English spelling lurks in the confusion of the digraphs *ei* and *ie*. Each of us was duly taught a rule for determining the correct form, but always within certain limits and with certain exceptions, for no rule can be devised which will cover all the ground;¹ to write *beleive* and *recieve* remains by common consent a sign of defective education. Rule 16 eliminates at one stroke of the pen 84 per cent of all such confusions. The rules numbered 3 and 16 are clearly and briefly stated in a total of twelve words, yet they accomplish almost as much toward the alleviation of the school problem of teaching spelling as the remaining portions of the six pages devoted to rules.

The Handbook of Simplified Spelling, Part I, states that teachers' associations in all parts of the country have passed resolutions favorable to the movement, and the College Entrance Examination

¹ F. W. Brown, "Learning to Spell," *Education*, XXXIV (May, 1914), 582-87.

Board has officially stated that "simplified or reformed spellings are freely allowed by the readers if the candidate is consistent in using them."¹ Yet not a single candidate out of 2,414 in seven years has been trained in spelling in accordance with the rules of simplified spelling. Why? Because the rules of simplification are too complicated for any teacher or any student to attempt. The approaches to the orthographic paradise are guarded with a maze of simplifying technique. To enter upon the process of teaching or learning simplified spelling one must first become an expert in the machinery of simplification. It is worth considering whether the attitude of teachers would not be changed if, as the first step in simplifying the teaching of spelling, the Board should seek the approval and practical support of associations of teachers and educators for the adoption of Rules 3 and 16 and of these alone. The two rules proposed are much simpler than those they replace; the saving in school time and money which would be effected is obvious to every teacher; and the percentage of misspellings made daily in every English-speaking school would decrease. This ground once gained, the Board could then proceed to the proposal of other reforms.

¹ *Suggestions and Aids to College Candidates in English*, p. 10. New York: College Entrance Examination Board, 1921.

A HISTORY CHART

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History, as it is usually taught, is a joy to the few and a bore to the many. To the ordinary boy or girl there is nothing very inspiring about a long drawn-out account of distant and unreal countries, bygone wars, and bizarre great men. On the contrary, many a high-school and college student has carried away from school a conviction that the subject is both dry and dilettante.

But now that H. G. Wells has shown what may be done to make history the grandest, as well as the most intimately practical, of studies it can be only a question of time until all schools and textbook writers adopt his plan of treatment. No other plan is comprehensive; no other is satisfying.

As an aid to a broader treatment of history a new kind of chart has been constructed for the Township High School of Benton, Illinois. It is an outline "Story of Life and Mankind," connecting up history and geology after the fashion of Mr. Wells, illustrated by objects and pictures, and always on view.

The chart runs around three walls of a large classroom. It is made of strips of eight-inch board covered with sign-cloth, nearly seventy feet in all. The printing was done with rubber stamps and a ruling pen. The Geologic Time Chart, beginning on a side wall, is the first of the three sections into which the chart is divided. It is thirty and one-half feet long and shows all the geologic periods from Cambrian to Pleistocene. On it is outlined the successive appearance in time of fishes, amphibia, reptiles, and mammals.

The last few inches of space on the geologic chart is extended on the second or Glacial Ages Chart to something over fourteen feet. This allows space for the details of that interesting period when man was becoming human. This chart is on the rear wall and practically continuous with the geologic chart.

Lastly, there is a section for the Historical Period extending twenty-four and one-half feet across the front wall. The data for this section were taken almost entirely from the textbook in use.

It was necessary to use three different scales of time. The geologic chart has an arbitrary scale of one hundred thousand years to the inch; the glacial chart has three thousand four hundred and sixty years to the inch; and the historic chart has twenty years to the inch. However, there is no difficulty in regarding the whole as one continuous time chart, since the glacial chart duplicates only six or seven inches of the geologic chart, and the historic chart duplicates but two inches of the glacial chart.

Illustrative material was sought for each chronological period, and either tacked on the chart itself or else placed above or below it. Old books and magazines were searched for maps and pictures; outline maps were colored to represent the ancient seas and glaciers; and pictures of prehistoric monsters and of early man were secured from leading museums. A small collection of fossils, striated glacial pebbles, and Indian relics adds further realism to the printed names on the chart.

Taught in this manner, history acquires a new interest. Here is a continuous and developing narrative of events, in which many matters that the books leave vague are brought into the domain of the obvious. One can take in at a glance the vast disproportion between historic and prehistoric times. Geology, a science almost unknown to the general public, is seen as a very concrete and verifiable account of life in ages long past. And if the past of our race is the key to our future, it would be difficult to find a better means of illustrating the fact than such a history chart.

THE RELATIVE STANDING OF STUDENTS IN SECONDARY SCHOOL, ON COMPREHENSIVE ENTRANCE EXAMINATIONS, AND IN COLLEGE

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THE PURPOSE OF THE STUDY

This investigation was carried on to determine in part the relative value of the secondary-school record and of the comprehensive-examination record as criteria for judging the probable ability of the candidate to perform work of college grade, and to compare the comprehensive examinations and the Old Plan examinations from this point of view. It supplements the study entitled "The Relative Standing of Pupils in High School, in Early College, and on College Entrance Examinations"¹ made by Edward A. Lincoln at Harvard University.

Mr. Lincoln studied the school, examination, and early college records of 253 men admitted to Harvard College under the Old Plan of admission. In the present study the data were obtained from school, examination, and early college records of 423 men admitted to Harvard College under the New Plan. Every candidate under the New Plan is required to submit a record of his secondary-school work and to take four comprehensive examinations set by the College Entrance Examination Board.

Mr. Lincoln reviewed the earlier studies in the field, pointing out that no previous study had compared the secondary-school record with the examination record as a criterion for determining fitness to do college work. Professor W. F. Dearborn² at the University of Wisconsin had demonstrated that the accrediting system was effective; Professor E. L. Thorndike³ had found a low correlation between the marks on entrance examinations and college marks;

¹ *School and Society*, V (April 7, 1917), 417-20.

² *Bulletin of the University of Wisconsin*, No. 312.

³ *Educational Review*, XXXI (May, 1906), 470-83.

and other investigators had confirmed the findings of one or the other of these. But Mr. Lincoln studied the school, examination, and college records of the same individuals and thus brought into direct comparison the examination and school record as indicators of the probable ability of the student to do college work. His conclusions, in agreement with those of previous investigators, pointed out "that the quality of work done in high or preparatory school is better and more accurate than the grades received on entrance examinations as a means for determining the fitness for work in college."

THE METHODS OF THIS STUDY

The data for this study were secured from the records of those Harvard men who had been admitted by the New Plan in the classes of 1920, 1921, and 1922. After eliminating the records of men who did not remain two full years in college, 423 cases remained to furnish the basis of this investigation. The method employed was similar to that used by Mr. Lincoln in order that the results of the two studies might be comparable.

The school, examination, and college records were averaged, and the averages adjusted to the college scale. In calculating the school average, the latest available mark in each subject was used rather than the complete record. In most cases this average was made up entirely of marks obtained in the last two years of school. In a few cases it was necessary to go farther back to determine the latest mark in mathematics, social science, or natural science. This use of the most recent mark in each subject rather than the entire record is justified on the following grounds: (1) the record obtained is a composite of the candidate's final status in each field; (2) the character of the work of the later years of the secondary school is more systematic and more closely resembles college work; and (3) the student's habits of work are nearer the college level. The school average does not include marks in commercial subjects, practical arts, music, drawing, or any subject not accepted for admission to college. The records of only the first two years of college were taken rather than the entire college record, because the work of these first years is more intimately related to the work

of the preparatory school and because the results represent more nearly present-day conditions.

The college scale is a literal scale (ABCD/E) for which the office has approximate percentile equivalents. The mark B, for example, includes roughly the range from 75 to 90. The midpoint, 83, was accordingly assigned to B, and 88 and 78 to B+ and B- respectively. Errors introduced by such an arbitrary assignment of numbers to letters tend to disappear when a large number of marks is considered. As the examination marks were given on the same literal scale, it was not difficult to obtain an average figure for the examination standing that could be compared with the averages for the first and second years of college.

The school records were given on a variety of literal and numerical scales. The percentile scale was used most commonly; but as the passing marks varied from 50 to 75 on that scale, it was impossible to use the averages without adjusting them to the same scale. For purposes of adjustment it was assumed that the passing mark represented approximately the same attainment in all schools, and that if the passing marks were made equal to the college passing mark and the remaining marks between the passing mark and 100 proportionately changed, the results would be comparable. This method takes account of relative differences in the marking systems of schools. It does not consider absolute differences in standards. It is felt, however, that the school with the extreme standard will be rare and that a school with a high standard will be offset by a school with a low standard. Moreover, many small differences in standard disappear in changing from a scale with small units to a scale with large units. In this study, the 423 candidates were prepared for college in 202 schools in 36 states. The writer recognizes the errors likely to be present in using averages and in any arbitrary adjustment of marks to a single standard, but these errors tend to balance each other when a large number of cases is considered.

As the college work of some men had been interrupted by war service, it was deemed advisable to calculate the coefficients of correlation for each class separately to determine whether the results would be affected by these irregular records. So far as it could be

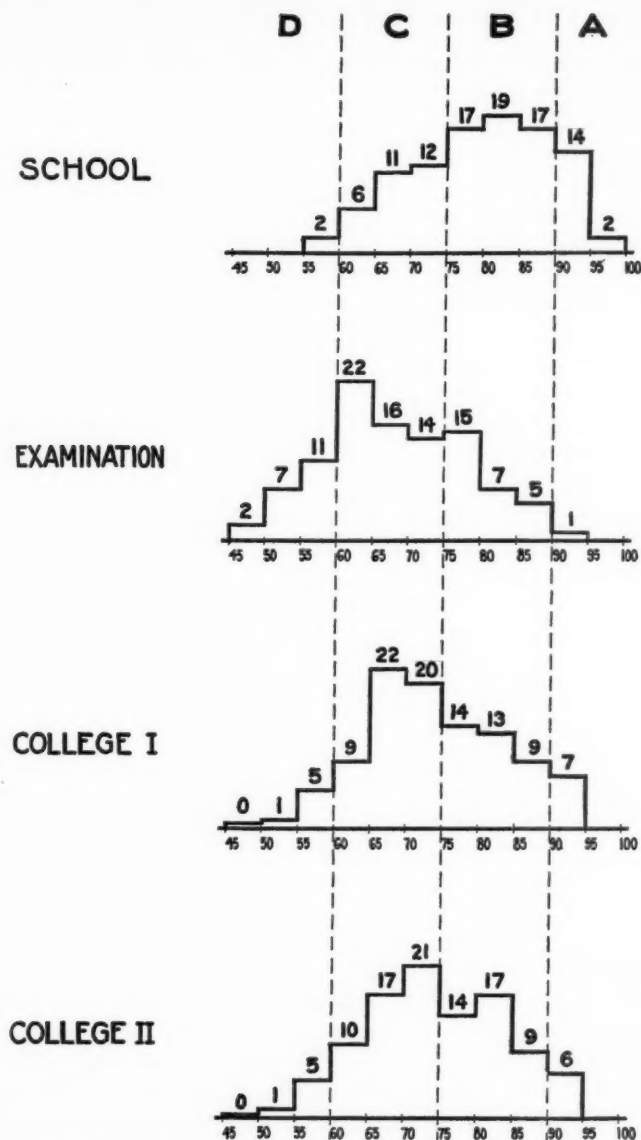


FIG. 1.—Distribution of average marks of 423 students in school, comprehensive examination, first-year college, and second-year college. The numbers above each column show the percentage of the total number of cases in each class interval.

determined by this method, there was no tendency for the records of the college year 1918-19 to be unreliable for the purposes of this investigation.

RESULTS

In Figure 1, the distributions of the averages of the school, examination, and college records are represented graphically and in percentages of the total number of cases. The school and examination records have been adjusted to the college scale. The following points are significant:

1. The distributions of the first-year and second-year college marks are symmetrical. No case with an average of E is found

TABLE I

CENTRAL TENDENCIES* OF DISTRIBUTIONS OF SCHOOL, EXAMINATION, AND EARLY COLLEGE MARKS

	Number of Cases	School	Examination	College I	College II
New Plan					
Students from private schools. . . .	139	75	69	70	69
Students from public schools. . . .	284	81	68	76	77
Total.	423	79	68	74	74
Old Plan†.	253	68	63	68	70

*Averages in percentages.

†E. A. Lincoln, *loc. cit.*, p. 419.

because a student with this average would be dropped before the completion of his second year.

2. The distribution of marks on the comprehensive examinations shows a large percentage of D averages and a very small percentage of A averages. The large group rejected by the college because of failure on the examination is not included.

3. A comparison of the school and examination distributions suggests that a joint consideration of both records is a better criterion than either record taken separately for predicting a man's ability to perform college work.

The figures in Table I show that the average record on the comprehensive examination is considerably lower than the average record in college. This finding apparently confirms the tendency shown by Mr. Lincoln on Old Plan records and inserted in the table

for purposes of comparison. It was also found that the men prepared at private schools obtained on the average poorer marks in school and in college than men prepared at public schools, but that on the examination the two groups were practically equal in attainment. This fact would lead one to suspect that the sort of preparation which met with success on entrance examinations was not necessarily the sort of preparation which enabled men to do their college work better. The writer hesitates to attach great significance to this finding because of the differing social and economic forces which influence the men of these groups. There is

TABLE II
PEARSON'S COEFFICIENTS OF CORRELATION (r) BASED ON GENERAL AVERAGES

	NEW PLAN		OLD PLAN*	
	r	P. E.	r	P. E.
School and examination.....	.37	.03	.46	.03
School and College I.....	.56	.02	.69	.02
School and College II.....	.56	.02	.58	.02
Examination and College I.....	.50	.02	.47	.03
Examination and College II.....	.46	.03	.41	.04
School and examination averaged, and College I.....	.65	.02		
School and examination averaged, and College II.....	.62	.02		

* E. A. Lincoln, *loc. cit.*, p. 419.

a tendency, however, for a public-school man to do better work in college than a private-school man who obtains the same comprehensive examination standing.

The correlation between the school and examination records under the comprehensive-examination system is lower than under the Old Plan. This tends to indicate that the schools are experiencing greater difficulty in preparing adequately for the newer type of examination. Under the system of comprehensive examination as higher correlation is found between the school and college records than between the examination and college records. A similar situation was reported by Mr. Lincoln on the Old Plan records. The differences in these correlations are less under the comprehensive-examination system than under the Old Plan examination system.

The highest correlations secured in this study were those obtained by averaging the individual school and examination records and correlating these averages with the college records. Here the attempt was to measure the efficiency of the New Plan, which considers both the school record and the comprehensive-examination record of the candidate.

CONCLUSIONS

The results of this study would appear to indicate the following:

1. The school record gives a somewhat better indication of the quality of work that men will do in college than does the record on the comprehensive examination.
2. The comprehensive examinations are superior to the Old Plan examinations in determining fitness for college.
3. The New Plan of admission is probably more effective than either the school record or the comprehensive-examination record alone, in indicating not only the candidate's ability to do college work but also the qualitative standard of his previous scholastic training.

An examination system imposes certain evils upon the secondary school. The most significant of these are a domination over the subject-matter and method of the work of the last year and a subordination of educational aims to the immediate objective of the examination. Probably these evils are less pronounced where candidates are preparing under the New Plan. The results of this study suggest that, from the point of view of the college, a more extensive use of the New Plan of admission is desirable.

Educational Writings

REVIEWS AND BOOK NOTES

The scientific treatment of delinquent children.—During a period when both America and Europe have been forced to record an increase in juvenile crime, and when the environments which stimulate such behavior seem to be far too strong for the agencies operating in behalf of the child, a book with a hopeful interpretation of the situation is indeed welcome. The fact that such a book comes from an author of highest repute in this field of study adds a further element of encouragement to those concerned with child welfare. A recent book^{*} by Dr. H. H. Goddard not only records the progress of the Ohio Bureau of Juvenile Research but also gives a most excellent discussion of the problems of the delinquent child.

The operation of the Ohio bureau, which is explained in considerable detail, is made the basis for the discussion. Some indication of the extent of the bureau's service during its brief period of existence may be gained from the following summary.

There have been three hundred and sixty-seven committed cases. These have been in residence at the Bureau cottages and under constant observation and study for periods ranging from two days to several months. The average time is about one week at the present.

The voluntary cases number 3,342, of whom 1,034 have come to the laboratory for examination and 2,308 have been examined away from the laboratory. This gives as a total 3,578 cases individually examined during the two years.

It may be mentioned that besides these cases we have examined 10,800 cases by the group method [p. 51].

The aim of the bureau is to make a complete mental and physical diagnosis of its cases, following this by proper remedial treatment and ultimate assignment to the necessary supervising agency.

In developing methods of mental diagnosis of the delinquent child a particularly valuable service has been rendered. The diagnoses of delinquent cases are made in terms of both intelligence levels and normality or abnormality of mental function. The relation of intelligence level, particularly in the case of the feeble-minded, to the problem of delinquency is already well known.

^{*} HENRY H. GODDARD, *Juvenile Delinquency*. New York: Dodd, Mead & Co., 1921. Pp. viii+120.

However, the cases of abnormality of function, which constitutes a psychopathic condition in the child, are less well understood. Since abnormal mental functioning may occur at any mental level, there may be many delinquent cases which measure up to all of the standards of a general intelligence test, but which exhibit marked psychopathic tendencies when other means of diagnosis are employed.

It is the psychopath who has not deteriorated but has a normal level or even, as many of them have, a superior level of intelligence that constitutes a great social problem. Such a psychopathic child has all the skill and ability of the normal person but without any control or any regard for the social conventions; consequently he yields to his deeper and more primitive impulses: becomes a thief, a liar, a sex pervert or other troublesome person. In short, he is not fit to be loose in a community; and society cannot tolerate him. Consequently he is arrested and brought into court, but not being feeble-minded, nor insane as the law recognizes insanity, he is only *bad* and therefore subject for punishment [p. 41].

Dr. Goddard gives a careful discussion of the psychopathic child, explains some of the tests which are used for discovering such a condition, gives numerous examples of such cases, and suggests proper treatment.

Declaring that the problem of juvenile delinquency is solvable and that the "hit-or-miss guess work procedure" of the past can be replaced by a scientific method of treatment, the author proposes a program of attack. A chapter entitled "The Schools' Opportunity to Prevent Delinquency" makes a vigorous plea for a better socialization of its pupils on the part of the school.

The book accomplishes three things in a most effective manner. First, in presenting the work of the Ohio Bureau of Juvenile Research, it outlines a plan for dealing with the problem which may serve as a guide for the organization of such work in other states. Second, it gives a discussion of certain phases of the psychology of delinquency which will be of interest and value to all serious students of this problem. And third, it demonstrates the complexity of psychological analysis which many workers with intelligence tests have assumed is all too simple. The book should be widely read.

G. T. BUSWELL

State school surveys.—With a view to providing more adequate support and securing more effective administration of public education, a number of states have recently made radical changes in the school code. In practically all of the other states, some more or less fundamental reorganization of the scheme of operation of the school system is under consideration. In planning revisions affecting the organization or administration of state school systems, comparative data from the experience or present conditions of other states similarly situated are not always accessible; hence state school-survey reports at this time will be received with unusual interest. Because of the rather extraordinary problems faced by the school authorities of southern states, a

peculiar interest will attach to the reports¹ of two state surveys recently made by the General Education Board.

The method of investigation and the presentation of the survey report are in the two cases very similar. The legal basis of the system is carefully analyzed and its provisions rather definitely related to the practices and conditions which are taken account of by the survey staff. Typical counties and cities were visited by members of the staff and a study made of the physical plant, the teaching force, the achievement of pupils in school work, and the financial support of the schools. The report describes the conditions existing, draws comparisons between these schools and other state systems in certain particulars, and submits a number of recommendations relating to both legislative provisions and administrative practice. In the case of North Carolina, the legislative enactments resulting from the survey are printed with the report.

The outstanding impressions given by the reports are that these two state school systems are poorly endowed for the work they are expected to do, that they have attempted to operate under serious administrative handicaps, that both supervision and teaching are woefully ineffective, and that in each case a very much greater burden of taxation will have to be assumed by the state at large before the educational opportunities within its boundaries can be raised to the level of the average for the United States as a whole.

In Kentucky, it is noted, for example, that while 50 per cent of the rural schoolhouses have been erected since 1908, all are unfit for school purposes because of poor planning, cheap construction, and lack of care. The state, therefore, faces the immediate financial problem of completely rebuilding its rural school plant. The situation in the cities is, with few exceptions, only slightly better. Forty per cent of the buildings for white pupils were constructed before 1890. The report suggests the abandonment of the majority of these. In most instances completely new facilities for colored students are regarded as necessary. Rural and urban schools alike are without sufficient space for any reasonable provision for play. Again, the present low level of teachers' salaries and inadequate facilities for the training of teachers call for a considerable increase in the appropriations if instruction and supervision are to be improved. Assuming that the present state distributive fund for rural and city schools is doubled, it will still be necessary for county school taxes to be increased 50 per cent and city district taxes more than 30 per cent in order that the per pupil expenditures for current expenses may be raised to that of the country-wide average. To meet the immediate necessities in the way of additional buildings, grounds, and equipment for teacher-training institutions the survey committee recommends an appropriation of \$650,000. For increased current expenses of teacher-training in 1922, it is estimated that \$175,000 will be required. These appropriations, in addition to the present annual budget, will provide for only the most pressing needs.

¹*Public Education in Kentucky*. Pp. ix+213. *Public Education in North Carolina*. Pp. xiv+137. New York: General Education Board, 1921.

In North Carolina, where great improvement is noted in public-school buildings erected within recent years, it is asserted that three-fourths of all the rural and city schoolhouses now standing should be replaced. At the time the survey was made the annual per pupil expenditures for capital outlay and for current expenses were each less than one-third the country-wide average. To bring the public-school system of this state to an average plane would then involve at the least a very rapid replacement of a large proportion of its present physical plant, an increase to three times the present amount in the annual outlay provided for the normal growth of the schools, and a like increase in the appropriations for current expenses.

As a means of evaluating the work of instruction in these state systems, certain standardized tests were administered to representative groups of pupils, and the progress of pupils through the elementary schools was noted. In both states it was found that the achievement of pupils on the tests and the rate of progress through the grades were considerably less than the established norms. The data concerning the training and the salaries of teachers reveal another phase of the backwardness of the schools surveyed. The reports include detailed accounts of the prevailing units of control, the organization of the state department of education, the courses of study, and the enrolment and attendance of pupils.

About one-fourth of each report is devoted to a discussion of the remedial steps which should be taken to correct the undesirable condition described. Better school organization and administration, higher standards for teachers, and better school support are urged in both cases. The general recommendations presented in this part of the report are in keeping with recognized practice in other states and are distinctly appropriate. Certain objections may, however, be made to the plan of submitting specific recommendations as to the details of the revisions suggested. For example, the survey staff very properly insists upon a modification of the Kentucky salary schedule to take account of successful teaching experience, the allowance for experience to vary with the amount of professional training. But for the outside experts to specify the monthly salary of the teachers holding a given grade of elementary-school certificates—though the suggested schedule may be reasonable for the present—may prove an obstacle to future progressive legislation.

In general, the reports indicate a careful and adequate study of school conditions in these two southern states and provide a valid basis upon which to plan for obviously needed improvements. Both the procedure and the discussion of the findings of these investigations will prove suggestive to authorities in other states who are facing similar problems.

N. B. HENRY

Marking systems.—One of the difficult problems in educational work is that of distributing marks to members of a group tested for any particular purpose. Numerous schemes of marking and of distributing marks to indicate

relative values on a graded scale have been employed with varying degrees of success. The tendency is toward a more and more critical evaluation of marking systems in terms of the results obtained from their use. One of the most critical studies of this character is published in a recent educational monograph¹ of Harvard University. The purpose of the study is defined in the opening paragraph.

This study represents an investigation into the distribution of the marks of the College Entrance Examination Board for the years 1902 to 1920 inclusive. It was made in order to discover if there were any grounds for the strong criticism of the college-entrance examinations by New England educators, more especially secondary-school principals and teachers. It is published at this time because the Board in its Twentieth Annual Report recognized the existence of sudden and violent fluctuations, from year to year in the results of the examinations, in many subjects, and voted to employ expert assistance to aid in determining the specific causes [p. 3].

The study covers the subjects of English readings, elementary French, elementary algebra, and plane geometry. These subjects were selected because they were offered by most of the candidates. In the arrangement of the marks the class intervals employed were 90-100, 75-89, 60-74, 50-59, and 0-49. The results show that most of the distributions are bimodal and that most of them are skewed negatively, or toward the lower end of the distribution. A comparison is made between the ratings of the recommended candidates and of those who were not recommended. Apparently, the recommended or superior individuals are no more consistently rated than the members of the rejected group. A number of graphs of selected distributions are presented, together with a discussion of the evidence upon which the investigator based his expectancy that the distributions would conform to the normal curve. A careful analysis of the effect of reading methods on the distribution is presented. The author's conclusions embody an interpretation of the data secured through the study.

The study presents a point of view and a basis for checking the reliability of a distribution of examination marks that merit careful consideration. It will be found helpful by all students of educational marking systems in determining what form of distribution is best adapted to meet a particular situation.

H. W. NUTT

Reorganized mathematics.—To meet the widely recognized need for a reorganization of high-school mathematics, we are being well-nigh flooded with a stream of new textbooks. One of the latest of these publications² is worthy of especial attention.

¹*The Marking System of the College Entrance Examination Board.* "Harvard Monographs in Education," Series 1, No. 2. Cambridge, Massachusetts: Harvard University, 1921. Pp. 16.

²JOHN B. HAMILTON and HERBERT E. BUCHANAN, *The Elements of High School Mathematics.* Chicago: Scott, Foresman & Co., 1921. Pp. 297.

The book, as its title-page indicates, comprises arithmetic, practical geometry, and algebra. While it is called a book on "mixed mathematics," unlike most recent texts, it does not include any trigonometric material. The mathematics is mixed only so far as the whole course is concerned, the different branches not being mixed in treatment. "The arithmetic, geometry, and algebra are treated each by its own specific technic and methods." This may facilitate in some ways the teachableness of the text, but in places it means a loss of correlation, save for the teacher who is skilful enough to take advantage of the fact that the beginnings of experimental geometry and algebra and later phases of arithmetic are developed so closely together. On the other hand, such related phases of a topic are given as seem essential to a real understanding of that topic. Thus, the chapter on equations is followed by a review of percentage and interest from the point of view of the formula and simple equational relations. This treatment is particularly valuable for junior high school classes.

The book is open to criticism in that the first chapter on algebra dealing with algebraic numbers and symbols starts out with the study of positive and negative numbers. With the exception of one important consideration, the remaining chapters on algebra are excellent. Should not the psychological precede the logical? Then why should the pupil who is to learn rules in algebra, such as theorems for type forms of multiplication and factoring, be given the theorem at the start, followed by material to prove the theorem? Why not let the pupil here use his skill in "generalizing" which the authors call "algebraic study at its best"? It might also be suggested that the chapter on mensuration and experimental geometry, which precedes this work in algebra, could well be made to re-enforce the pupils' knowledge of the principles of deriving general laws. The chapter on geometry is headed "Mensuration—Lines and Angles." In the introductory paragraph it is stated that lines and angles are to be studied because they are the component parts of areas. The chapter includes work in construction, parallel lines, triangles, quadrilaterals, similar polygons, and areas of polygons. The difficulty with the material here seems to be that it passes too rapidly from one subject—and the many definitions given therewith—to another subject. For example, work is done in ratio and proportion so the pupil may understand the definition of similar polygons. This is followed, before passing into work in areas, by just two constructions—to construct a triangle similar to a given triangle and to draw a pair of similar triangles.

The problems of the book are in the main practical, furnishing opportunities for applying mathematical principles to situations of everyday life. The present writer believes the book will be of special interest to teachers of mathematics in junior high schools.

AGNES G. ROWLANDS

LIGGETT SCHOOL
Detroit, Michigan

Extending school supervision.—In order that they may more effectively deal with the "problem" pupil, a number of schools have added the visiting teacher to their faculty. An interesting account of the work being done by such teachers is presented in a recent report¹ of a survey made by the National Association of Visiting Teachers and Home and School Visitors.

The purpose of the report is to furnish information to those who are instituting such work in new localities and to visiting teachers who desire to become acquainted with the work being done by other visiting teachers. The survey was made by means of questionnaires which were sent to some eighty persons scattered throughout the country who were known to be engaged in this work. Replies were received from sixty of these teachers. In many cases additional information was secured by correspondence concerning particular phases of the work.

The report deals with the different methods of supervising the work of the visiting teacher and the relation of this teacher to other teachers and to the school system. In most cases the visiting teachers are supervised by the superintendent of schools or his associates, and they are usually assigned to a single school or to an area sufficiently compact for them to become acquainted with it. In general, the hours of work of the visiting teacher are equivalent to those of the school day and week, but the nature of the work makes it impossible to limit the time spent to definite or regular hours. There are, however, certain activities which appear to be somewhat characteristic of this officer's service during the regular school day. Thus, it is noted that practically all report a considerable amount of time spent in the school in conference with teachers or pupils, and the majority of them have found it expedient to keep regular office hours.

Various reasons are reported as causes for which children are referred to the visiting teacher. These relate principally to maladjustments in scholarship, adverse home conditions, misconduct, and irregular attendance. It is noted that the frequency with which each of these causes is responsible for placing a pupil under the care of the visiting teacher varies in different parts of the country. In the discussion of the methods employed to improve the condition of pupils, specific cases are described and the treatment and results outlined. In addition, a summary is given of the reports of the visiting teachers as to the measures found most effective and those employed most frequently in dealing with difficult cases.

The information and suggestions presented in the report will be found valuable for administrative officers and for regular teachers in school systems where such work is to be undertaken, as well as for those who are actively engaged in the work.

W. D. BOWMAN

¹ *The Visiting Teacher*. New York: Public Education Association of the City of New York, 1921. Pp. 64.

A study of the legal certification of teachers.—Teachers are often handicapped upon changing location by the existence of differing laws of certification in the various states. Much of this difficulty can be eliminated by proper circulation of information regarding these laws of certification. A recent Bureau of Education bulletin,¹ in attempting to give information regarding this problem, has as its fundamental purposes the following:

(1) To furnish information concerning legal provisions governing the issuance of certificates to teach in all the states.

(2) To furnish data for comparison among states and facilitate recognition of certificates in cases in which similar or equivalent qualifications are demanded.

(3) To point out the trend in progressive legislation concerning teachers' certificates and promote standardization for the United States.

(4) To facilitate study and comparison of the standards set up by the several states [pp. 5-6].

The report is introduced in a historical manner by a description of the development of the certification of teachers in the different states. The gradual tendency toward centralization of certifying authority in state departments of education is clearly shown. For instance, in 1898 only three states had entire central certification, while in 1919 there were twenty-six.

A notable feature of the book is the discussion given to scholarship requirements. The tendency toward higher scholarship requirements may be observed in several ways.

When a new form of certificate is established, the qualifications demanded are usually higher and more specialized than formerly. Kindergarten, primary, and special subject certificates in most cases require high-school and normal-school or college graduation or the equivalent, including preparation for the special kind of work or subject for which they are issued [pp 20-21].

The state laws and regulations concerning teachers' certificates are presented in precise tabular form. These tables comprise the major portion of the report and serve as a condensed encyclopedia of information bearing upon this subject.

The bulletin, by gathering together in this concise manner the existing information regarding certification, will be of considerable service to the teaching profession.

Business training for college students.—One of the chief obstacles to the extension of the advanced study of business correspondence has been the lack of suitable textbooks. A distinct aid toward filling this need is a recent publication² designed as a text for use in schools of college grade. The authors

¹ "State Laws and Regulations Governing Teachers' Certificates," *Bureau of Education Bulletin No. 22, 1921*. Washington: Department of the Interior. Pp. 244.

² GEORGE BURTON HOTCHKISS and EDWARD JONES KILDUFF, *Advanced Business Correspondence*. New York: Harper and Brothers, 1921. Pp. x+513.

try to give a bird's-eye view of the entire field of business with its many operations, at the same time keeping foremost the fundamental principle of English composition. The book "attempts to explain and illustrate the fundamental principles that govern all kinds of business letters and to give practical methods of handling the more typical situations. In a word, it tries to show attainable ideals and sound strategy in business correspondence" (pp. viii-ix).

Beginning with the general principles upon which good business letters are constructed, the book takes up various kinds of business correspondence, including such topics as credit letters, sales and business promotion letters, letters of application, argumentative letters, complaint and adjustment letters, appeals to different classes, correspondence supervision, and business reports. In an appendix a very good treatment of the mechanical make-up of a letter is given, followed by a discussion of the legal aspect of letters.

The chapter on "Letters Applying for Positions" illustrates in a concrete way the method by which the authors treat the different subjects. First, the importance of the application letter is pointed out. This is followed by a discussion as to the ways of attracting the favorable attention of the reader. The authors go on to show how to create desire, convince the reader, and stimulate the reader to action, taking up all the phases of the subject in a careful detailed manner.

The book is clear, forceful, and goes to the very heart of the matter, not only giving a thorough treatment of the theory of good business correspondence, but illustrating the points in question by selections from letters taken from files in business houses. The text will be found to serve well the purpose for which it is designed and will prove a valuable aid to the business or professional man in carrying on his business correspondence.

SHIRLEY HAMRIN

An introductory course in journalism.—The plan of many textbooks and manuals is theoretical to such an extent that it fails to work when put into actual practice. In a recent text,² based on the author's experience in teaching high-school classes in journalism, there is a striking example of a content that has been successful in actual operation and has been responsible for state championship publications for three successive years. This manual is a combination of plans, devices, and methods which have been found practical and successful in classroom activities and in the publication of high-school newspapers, handbooks, reviews, and annuals.

In the Introduction Miss Huff states that journalism is a laboratory subject. The laboratory work consists in actual practice on the school paper, the annual, and other publications, each pupil being required to spend a specified amount of time on this work. The book includes material for three semester courses. Each chapter has three divisions. First, the aim is stated;

² BESSIE M. HUFF, *A Laboratory Manual for Journalism in High School*. Muskogee, Oklahoma: Star Printery, 1921. Pp. viii+98.

second, the assignment for the week is outlined; and third, a list of related bibliographical references is given. The course aims to give the pupils a wide range in the field of journalism and to assist them to make direct application of this through the laboratory method. In the first semester such phases as the organization of the staff, the reporter, local news, leads, and bodies of the story are subjects of intensive study. In the second part, society and sporting stories, interviews and speeches, advertising, feature stories, and cartoons are taken up in the same manner. The third part concerns itself chiefly with editorials, headlines, the history of journalism, and other similar topics adapted for the instruction of staff members. The manual is concluded by a practical discussion by Mr. C. K. Reiff, on the administration of school publications.

The content of the manual is practical and logically organized. The text is well supplied with bibliographical references. It is worthy of consideration by all teachers and supervisors interested in the teaching of journalism in the high school.

W. D. BOWMAN

Source material for the study of geography.—One of the difficulties ordinarily faced by the instructor of college or junior college classes in geography is the assembling of collateral material of sufficient scope and variety from the sources available. A recent publication¹ supplies this material in well-arranged form so far as the geography of North America is concerned.

The aim and scope of the book are indicated in the following paragraph from the Preface.

Many of the sections included are intended to serve as a basis for a geographic discussion, rather than as a geographic discussion. In other words, much of the material as it stands is not strictly geographic in character, having been written for a variety of purposes, and it therefore remains for the instructor to make it function geographically. The book does not, then, constitute a course in "Economic Geography of North America," but furnishes some of the material required by such a course [p. vi].

The material relating to Canada includes an article on "Regional Concepts of Canada" which considers the size, position, and boundaries in the light of environmental factors. Other selections deal specifically with the agricultural regions, climate, land and water areas, mineral resources, population, etc. A chapter is devoted to the resources and industries of the several provinces, and additional material comprises a description in greater detail of the geography of the different regions, their industries, and possibilities.

The section of the book treating of the United States presents material concerning the land and its use, conditions affecting its use, the original and present forest areas, water power, mineral production in the various states, manufacturing, etc. The geography of the country is treated in considerable

¹CHARLES C. COLBY, *Source Book for the Economic Geography of North America*. Chicago: University of Chicago Press, 1921. Pp. 400. \$4.00.

detail by four subdivisions, namely, northeastern United States, southeastern United States, interior United States, and western United States. Notable features of the treatment of northeastern United States are the articles on "The Relation of Environment to the Textile and Paper Industries of Massachusetts," "Geographic Influences in the Development of New York State," and "The Relation of the Port of New York to the Foreign Commerce of the United States." The material relating to southeastern United States is concerned principally with soils and crops. Significant papers in the section on interior United States treat of the resources and physical environment of the Great Plains region. Concerning western United States, typical articles are "The Relation of Water Resources to Economic Activities in the West," "Water Resources of California," and "Forest Resources and the Lumber Industry in the Pacific States."

The ten principal geographic divisions of Mexico are defined and the climatic contrasts noted. In addition, seventeen different selections treat of various aspects of Mexican geography, such as "The Relation of Geographic Conditions to the Development of the Mexican Railroad System," "The Economic Significance of the Colorado Delta," "Geographic Conditions Affecting Land Tenure and Revolutions in Mexico," "The Mexican Cattle Ranges, and "The Petroleum Industry."

The selection and organization of the material presented makes the book valuable both for use in instruction and as a means of introducing the beginning student to a wide range of valuable literature in the field of economic geography to which he would not otherwise have ready access.

LUTHER LEECH

Project method in general science.—The general enthusiasm for the project method of class instruction has stimulated the publication of numbers of textbooks which aim to adapt the materials presented to this type of teaching. A new text¹ of this kind in the field of general science is offered for use in the first year of high school or in junior high school work. The specific aims of the book, as stated in the Preface, indicate the point of view which influenced the selection and organization of the material.

First: to encourage the spirit of inquiry, and to cultivate the attitude of independent judgment, of openmindedness, and of reliance upon facts.

Second: to put the pupils in possession of certain fundamental truths which give an explanation of many everyday activities.

Third: to lead pupils to a broad view of the forces that affect their surroundings, rather than a detailed study of some one section of their environment. The pupils of this early adolescent period are interested in big units and a broad outlook, rather than in minute details [p. iii].

The author considers the environment as a whole without dividing it into the various special sciences. The material has been selected from that part

¹EDGAR A. BEDFORD, *General Science*. Boston: Allyn & Bacon, 1921. Pp xxiii+387.

of the environment which is related to the practical interests of the pupils and is organized into five large units. Each of these units is made up of a number of projects, which in turn are divided into problems. Additional individual projects are suggested, making the text readily adaptable to any type of class work.

The content of the book is very practical, being influenced in the choice of its topics by the needs of the ordinary well-educated citizen. For example, Unit I, "Relation of Water to Everyday Activities," considers such topics as the relation of plants to moisture, moisture in the air and its importance to us, water power, the water supply, sewage disposal, and water as a means of transportation. By means of pointed questions, illustrations, and diagrams the principles involved are brought to the attention of the student. Other units of the text deal with "The Relation of Air to Everyday Activities," "The Relation of Us to Sun, Moon, and Stars," "Work and Energy," and "Relation of Soil and Plant Life to Everyday Activities."

As a departure from the old, more formal type of text, this book is to be commended. The material is both carefully chosen and well arranged and will appeal to the interests of the pupils.

SHIRLEY HAMRIN

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